READING *across* the CURRICULUM 2

Non fiction text for Guided Silent Reading Lessons

REPTILES

HANDY RESOURCES©

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USING THE TEXT

COMPREHENSION STRATEGY INSTRUCTION *"The Three Steps"*

With a small group, the text is processed one paragraph at a time using the following three steps.

STEP 1 SET A PURPOSE and READ SILENTLY

Teacher: "As you are reading this paragraph think about the topic and which of the headings would best summarise the information."

STEP 2 DETAILED RETELLING

Use THINKING ALOUD to model and practise the use of comprehension strategies

(Turn to page 49 for more information about these strategies and the 3 steps process)

Teacher models:

"The first bit of information says that '*giant tortoises eat anything that is green including cactus, fruits, leaves, and grasses*.'
I think that means that the giant tortoise will eat any plants that they can find.
I wonder if that means they are only herbivores or do they eat meat as well [*asking questions*]
I had some turtles once but they ate snails and insects as well." [*making connections to prior knowledge*]
"What's the next piece of information?"

Student A:

"The next bit says that '...Where there are plenty of plants they will eat from the ground.'
I think that means if there are plenty of plants they will just go for the stuff that grows on the ground.
Maybe they are not fussy about what they eat [*forming an hypothesis*].

Teacher: "What's the next piece of information?"

Student B:

"It says '...*If not they will reach up and eat leaves from low tree branches*.'
I think that means that sometimes there is not a lot of plant food on the ground so then they go for leaves on trees.
I have a picture in my head of the tortoise stretching out its neck [*visualizing the action*]

Student C:

"Then it says '...*Some will even stand up on their back legs which is very risky because if they topple over onto their back there is no way they can right themselves. .'*
I think that means that sometimes they will stand on their back legs to get leaves that are higher up and that is dangerous because if they fall over backwards onto their shell they are stuck.
I can see that happening and I can image that there is no way for the poor tortoise to roll over. [*visualizing the action*]

Students continue to take turns at retelling one piece of information at a time. The teacher has a turn regularly to model the process. As the students become more fluent the need for modeling decreases.

STEP 3 HEADINGS and TRIGGER WORDS

Teacher: "Can we decide on a heading to summarise the information?"

Student A:
"I think the heading is 'Feeding Behaviour' because the paragraph is mainly about what they eat and how they get their food."

Teacher: "What are TRIGGER WORDS for each piece of information
Student A: "Anything green."
Student B: "From ground."
Student C: "Reach up—back legs– risky."
Student D: "Store water."

Teacher: "Turn to the person next to you. Cover the text and have a go at retelling the information in your own words using just the headings and trigger words."

Headings to choose from

MAN and the GIANT TORTOISE
FEEDING BEHAVIOUR
REPRODUCTION
PREDATORS
PHYSICAL FEATURES
HABITAT
CLASSIFICATION
SOCIAL BEHAVIOUR

Back to Step 1 for the next paragraph of the text

THE INFORMATION REPORTS—Reading Ages 7-14

An example: THE GIANT TORTOISE Set 3:2 Reading Age 9-10 years

THE GIANT TORTOISE

Headings and trigger words
Use this column to write down a heading and trigger words so you can retell each paragraph.

Classification
- reptile
- largest turtle

Physical features
- pillar-shaped legs
- toes on claws
  -digging and burrowing
- danger—withdraw into

Column for student to record Headings and Trigger Words

The giant tortoise is a reptile and one of the largest members of the turtle family.

Unlike most turtles, tortoises live on land and their body is not designed for swimming. It has thick pillar-shaped legs which are needed to support its large body and its heavy shell made of bone. They have claws on their toes to make it easier for them to walk around on land and for digging and burrowing. The head and legs are too big to completely withdraw into the shell but they still attempt to do this when they are threatened.

They like a hot climate with plenty of trees for shelter from the midday heat and vegetation for food. As with all reptiles they need heat from their body temperature so that they can survive. They shade to avoid being baked alive in their own shell hot. At night when it gets cold, they dig themselves ound or vegetation. They are found only on a few near the equator.

Habitat
- hot climate
- tree shelter
- burrow at night
- few islands

Text divided into paragraphs. Use "The Three Steps" on each paragraph.

STEP 1

STEP 2

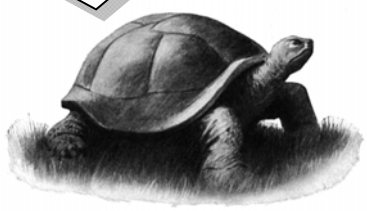
STEP 3

Giant tortoises eat anything that is green including cactus, fruits, leaves and grasses. Where there are plenty of plants they will eat from the ground. If not they will reach up and eat leaves from low tree branches. Some will even stand up on their back legs which is very risky because if they topple over onto their back there is no way they can right themselves. They are very good at storing water inside their bodies which helps them to survive the long dry season.

Giant tortoises usually live on their own but are sometimes found in groups around waterholes or in the shade sleeping. They are very peaceful animals and rarely fight. When competing for a female mate they have neck stretching competitions. The one who can stretch its head the highest wins the right to mate with the female.

A small illustration at the bottom of the text to help visualize written description. The focus is on constructing meaning from the text with minimal visual information.

tury sailors discovered that giant tortoises were a very pply because they could survive for months without They could catch them easily, flip them on their back in the hold of their ship. This gave them a supply of ng ocean voyages. More recently giant tortoises have oil. Because of this there are very few remaining and arefully protected.



Giant tortoises have very few natural predators, but the introduction of other animals to their island habitat has created problems. Goats, introduced in 1958, have eaten a lot of the plant food that tortoises rely on, and tortoise eggs and baby tortoises are easy prey for wild pigs, dogs, cats and rats.

Set 3:2 RA 9-10

Set number and Instructional Reading Age

USING THE FOLLOW UP ACTIVITIES

COMPREHENSION STRATEGIES with BLOOM'S TAXONOMY

The purpose
These activities are not busy work. They are an important part of comprehension strategy instruction (see pages 49-50). The processing of information required by the higher level thinking activities extend comprehension by developing critical and creative thinking. They provide students with meaningful, independent work while small group instruction is taking place.

Level 1

Remembering – What are the facts
These activities require students to locate factual information that can be found in the text and to make up their own literal comprehension questions.

Level 2

Understanding – Show that you understand the information
Students are asked to draw pictures with labels to demonstrate their understanding of important concepts in the text.
They are also asked to use the headings and trigger words that were recorded during Step 3 of the Guided Reading process, to rewrite the information in their own words. This is an excellent opportunity to develop note taking skills beyond the "cut and paste" mentality and develops a deeper understanding of information.

Level 3

Applying – Using the information in another way
These activities require students to take the information in the article and present it in a different way, in this case the narrative genre.
Activities include poems, stories, diary entries, and comic strips which should incorporate information from the report.

Level 4

Analysing – Identifying the features that help reptiles survive
Students will need to reskim the text to create a list of physical features and then analyse how these attributes contribute to the reptile's survival.
This information is then presented as an information web—see the example on page 58

Level 5

Evaluating – How safe is the reptile
Having identified how the reptile operates in the previous activity, students can now make an evaluation of the risk from predators and the reptile's status as an endangered species.

Level 6

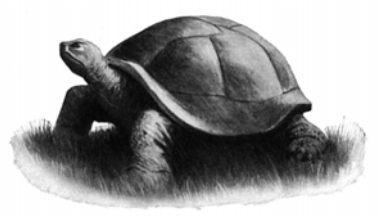
Creating - Coming up with new ideas
These activities allow students to have some creative fun with species adaptations but also to think seriously about raising awareness of the plight of the more endangered species.

Suggestions for successful implementation:

- Spend time teaching the activities
- Provide an audience—there should be a sharing time where work can be presented
- Allow choice—students find this very motivating
  —students who struggle with the complexity of the concepts in the report will find security in the lower level activities
  —more able students enjoy the creativity and challenge of the higher levels
- See pages 59 and 60 for suggestions about class organisation.

REPTILES FOLLOW UP ACTIVITIES - *a sample page*

THE GIANT TORTOISE



Set 3:2 ACTIVITIES

Level 1

REMEMBERING - What are the facts

1. Where do you find giant tortoises?
2. Why do giant tortoises need shade?
3. Write 4 questions like the ones above. You must be able to find the answer in the report.

Level 2

UNDERSTANDING - Show that you understand the information

4. Draw a picture to show what a giant tortoise does when it feels in danger.
   Include labels to explain what is happening in your drawing.
5. Use just your heading and trigger words from one paragraph to rewrite the paragraph in your own words. If you have time, have a go at another one.

Level 3

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about the giant tortoise.
7. ***A day in the life of a giant tortoise***
   Use the information in the report to describe a day in the life of a giant tortoise.
   You can do this by writing a giant tortoise story or by making a comic strip with captions.
   Try to include as many facts about the giant tortoise as you can.

Level 4

ANALYSING - Identifying the features that help giant tortoise survive

8. ***Information Web***
   List all the physical features and the behaviours of the giant tortoise mentioned in the report
   Brainstorm ways which these features and behaviours help the animal to survive.
   Present this as an INFORMATION WEB.

Example :  → store water → can survive the long dry season

Level 5

EVALUATING - How safe is the giant tortoise

9. ***Predator Rating—***give the giant tortoise a predator rating from 1 to 10
   1 = no danger from predators 10 = very high danger from predators
   Give reasons for your rating using information from the report or your own ideas.

10 ***Extinction Rating—***give the giant tortoise an extinction rating from 1 to 10
   1= no risk of extinction 10 = very close to extinction
   Give reasons for your rating using information from the report and your own ideas.

Level 6

CREATING - Coming up with new ideas

11 ***Giant tortoise Upgrade-overcoming threats***
   Make some improvements to the giant tortoise's physical features and behaviour to help it survive the following changes to its habitat.
   - It becomes very dry and all the trees and shade on the island die
   - A new predator is introduced that is strong enough to tip the tortoise onto its back

   Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

12 ***Action Plan—save the giant tortoise***
   The giant tortoise is in danger. Design a poster for tourists visiting the islands where they live, to make them aware of the problems facing the giant tortoise.

REPTILES

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Reptiles are a group of animals that have scales, breathe air, and usually lay eggs. They are also cold-blooded which means they don't burn food to keep their body warm.

Most reptiles are found in hot countries because they are cold-blooded and need heat from the sun to warm up their bodies. When it gets too hot they move into the shade. They can be found in many different habitats, in trees, on the ground, under the ground, and in water.

Reptiles have special features which help them survive. Small reptiles that live in trees have special feet and claws for climbing. They have designs on their skin to help them hide from other animals. All reptiles are covered in scales which are really thick pieces of skin. They have a very good sense of smell and taste. They use their tongue to 'taste' different smells in the air.

Most reptiles eat other animals and swallow their food whole without chewing. Young reptiles eat mainly insects. As they grow older they can eat fish, birds, smaller reptiles and other small animals. Because reptiles do not use food to keep their body warm, they can get by on a lot less food than other animals.

Most reptiles lay eggs on land. They dig holes and cover them over to hide them from other animals. Reptile eggs usually have a leathery shell. All young reptiles are able to feed themselves once they are born. Usually the mother will leave them on their own and does not look after them.

Reptiles have many babies because most of them do not survive. They are the favourite food of larger animals.

REPTILES

Set 1:1 ACTIVITIES

REMEMBERING - What are the facts

1. Where do you find most reptiles?
2. What do reptiles do when they get too hot?

UNDERSTANDING - Show that you understand the information

3. Draw a picture to show how reptiles eat their food.
   Include labels to explain what is happening in your drawing.

4. Use your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words.

APPLYING - Using the information in another way

5. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about reptiles.

6. ***Comic Strip***
   Make a comic strip about reptiles with speech bubbles or captions.
   Include some information from the report.

ANALYSING - Identifying features that help reptiles survive

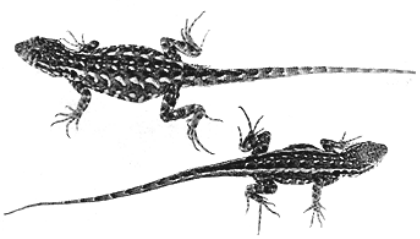
7. ***Information Web***
   Make a list of the physical features and behaviours of a reptile mentioned in the report. Brainstorm how these features and behaviours help them survive. Show your ideas on an INFORMATION WEB.

   Example : **REPTILES** → cold-blooded → don't have to eat every day

CREATING - Coming up with new ideas

8. ***Super Reptile***
   Design a new super reptile who could survive in cold places.
   - Draw this new animal and label all its useful features
   - Describe how it would keep warm
   - Show how your baby super reptile could protect itself from larger animals

   Remember to include pictures and labels to explain your interesting ideas.



TURTLES

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Turtles belong to the family of reptiles.

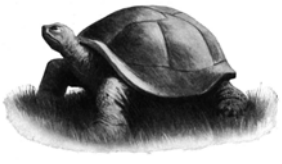
Some turtles live in the sea. They spend all their time in the water and only come out to lay their eggs. Some turtle live on land and dig holes to sleep in. Land turtles are called tortoises. Other turtles spend some time in the water and some time on dry land. They can be found around streams, ponds, and lakes.

Turtles have special features to help them survive. They are the only reptile with a shell attached to their body. On land they are very slow moving. If they feel in danger they can pull their legs and head back inside the shell for protection. Sea turtles and freshwater turtles can stay under water for a long time. They have flippers or webbed feet to help them swim.

Turtles eat plants, insects, snails or other small animals. Because they are cold-blooded they do not need lots of food all the time to keep their body going. They do not have teeth. They have a beak which they use to kill small animals or to chop plants into small pieces. They swallow their food without chewing it.

Turtles lay eggs in nests on the land. They dig a hole and then cover their eggs. They don't stay to look after the babies. When the babies hatch they are able to look after themselves. Turtles can live for over 100 years.

Many turtle eggs are found and eaten by other animals before they hatch. Baby turtles are easily caught by animals, birds, fish, and snakes. Only a few turtles survive. Once they get bigger their shells provide good protection.



TURTLES

Set 1:2 ACTIVITIES

REMEMBERING - What are the facts

1. What are the three different places you can find turtles?
2. What does the report say about turtles moving on land?
3. Write a question like the ones above. Write down the answer as well.
   You must be able to find the answer in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture to show what happens when a turtle feels in danger.
   Include labels to explain what is happening in your drawing.
5. Use your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about the life of a turtle.
7. ***Comic Strip***
   Make a comic strip about a turtle with speech bubbles or captions.
   Include some information from the report.

ANALYSING - Identifying the features that help turtles survive

8. ***Information Web***
   Make a list of all the physical features and behaviours of turtles mentioned in the report. Brainstorm how these features and behaviours help them survive. Show your ideas on an INFORMATION WEB.

Example :  → shell → protection from predators

EVALUATING - How safe are turtles

9. ***Predator Rating—***give turtles a predator rating from 1 to 10
   1 = no danger from predators ***10 = very high danger from predators***
   Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

10. ***Turtle Upgrade***
    Make some improvements to turtles that would make it even easier for them to survive. You could make changes to
    - the way it moves on land
    - the way it keeps warm
    - protection for the nest of turtle eggs

Remember to include pictures and labels to explain your interesting ideas.

SNAKES

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Snakes are reptiles and are cold-blooded.

Snakes live in many different places. You can find them on the ground, underground in burrows, in trees, in rivers, and in the ocean. Most snakes are found in deserts or hot rainforests where it easy to keep their bodies warm.

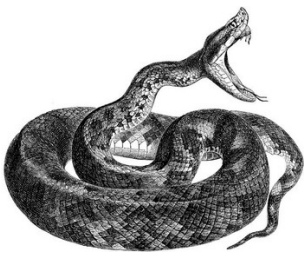
Snakes have long bodies shaped like cylinders. They have no legs and have to slide on their belly to move around. Their skin is smooth and covered in scales. As the snake grows its skin splits and peels off.

Snakes are meat-eaters. Small snakes eat insects, lizards, and rats. Large snakes can eat bigger animals such as wild pigs. They usually lie in wait for food to come to them. They bite their prey and kill them by injecting poison or by squeezing them to death. They swallow the animal whole without chewing it. They have special jaws that can open really wide and swallow an animal that is larger than its head.

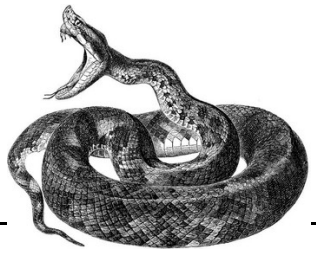
Most reptiles lay eggs which hatch into babies. A lot of snakes give birth to live babies. Baby snakes grow quickly and are adults after two or three years. They may live for 20-30 years. They do not stop growing throughout their life, they just keep getting bigger and bigger.

Many animals feed on snakes. When predators come near, snakes usually stay very still and hope they will not be noticed. They have special designs on their skin to help them hide from other animals. If they are cornered they will lift their heads and hiss, show their fangs, or strike at the attacker.





SNAKES



Set 1:3 ACTIVITIES

REMEMBERING - What are the facts

1. Make a list of the different places you can find snakes.
2. Why do snakes like living in deserts and rainforests ?
3. Write a question like the ones above.
   You must be able to find the answer in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture to show what happens to a snake's skin.
   Include labels to explain what is happening in your drawing.
5. Use your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about the life of a snake.
7. ***Comic Strip***
   Make a comic strip about a snake with speech bubbles or captions.
   Include some information from the report.

ANALYSING - Identifying the features that help snakes survive

8. ***Information Web***
   Make a list of all physical features and behaviours of snakes mentioned in the report. Brainstorm how these features and behaviours help them survive. Show your ideas on an INFORMATION WEB.

Example :  → no legs → slide along the ground

EVALUATING - How safe is the snake

9. ***Predator Rating—***give snakes a predator rating from 1 to 10
   1 = no danger from predators ***10 = very high danger from predators***
   Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

10. ***Snake Upgrade***
    Make some improvements to the snake that would make it easier to survive. You could make changes to
    - the way it moves about
    - the way it protects itself from other animals
    - the way it keeps warm

Remember to include pictures and labels to explain your interesting ideas.

LIZARDS

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Lizards are reptiles. There are over 4,000 different kinds of lizards. This makes them the biggest family of reptiles.

Lizards live in more places than any other kind of reptile. Their favourite place is the hot rainforest because they are cold-blooded and find it easier to stay warm in hot places.

Lizards come in all sorts of shapes and colours. Most lizards have four legs which stick out of the side of the body. Many lizards are very small and live in trees. They have special feet with claws in their toes and a tail to help them with climbing. They can move about quickly.

Lizards will eat almost anything. Small lizards eat mainly insects which they chase after, or catch by shooting out a long sticky tongue. They are very important because they keep down the number of insects. There are some larger lizards who eat meat.

Most lizards lay eggs with soft leathery shells. As soon as the babies hatch they are able to find food for themselves. As with most reptiles, the parents don't look after them. They can live for 5-10 years.

Birds, snakes and many other animals eat lots of lizards. Small lizards are not able to fight back against much larger animals, so they have other ways of frightening off predators. Some can change their colour to help them hide. Often they will show their tail to a predator. When the predator grabs their tail they can break it off and escape. A new tail will grow back. Larger lizards use their claws and sharp teeth to defend themselves.

Lizards are not much use to man for food but they are hunted for their beautiful skins and are also sold as pets.

LIZARDS

Set 1:4 ACTIVITIES

REMEMBERING - What are the facts

1. How many different kinds of lizard are there?
2. Why do lizards like living in the rainforest?
3. Write a question like the ones above.
   You must be able to find the answer in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture to show how a lizard uses its tail to escapes from a predator.
   Include labels to explain what is happening in your drawing.
5. Use your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about the life of a lizard.
7. ***Comic Strip***
   Make a comic strip about a lizard with speech bubbles or captions.
   Include some information from the report.

ANALYSING - Identifying the features that help the lizard survive

8. ***Information Web***
   Make a list of all the physical features and behaviours of lizards mentioned in the report. Brainstorm how these features and behaviours help them survive. Show your ideas on an INFORMATION WEB.

   Example :  → special feet with claws → helps them to climb trees

EVALUATING - How safe is the lizard

9. ***Predator Rating—***give the lizard a predator rating from 1 to 10
   1 = no danger from predators 10 = very high danger from predators
   Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

10. ***Lizard Upgrade***
    Make some improvements to the lizard that would make it easier to survive in the rainforest. You could make changes to
    - the way it catch insects
    - the way it protects itself from other animals
    - the way it looks after its young

Remember to include pictures and labels to explain your interesting ideas.

REPTILES

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Reptiles are a group of animals that have scales, breathe air, and usually lay eggs. They are also known as cold-blooded animals. There are four main reptile families; crocodilians, turtles, lizards, and snakes.

You can find reptiles throughout the world except for very cold places like Antarctica. They are most numerous in hot, tropical rainforests. Reptiles live in many different habitats. Small reptiles are often tree-dwellers, while larger reptiles usually live on the ground and in water.

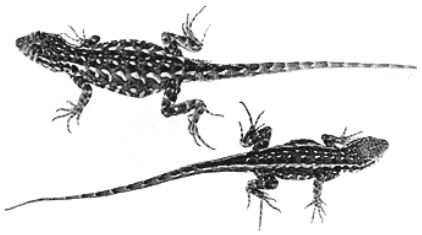
Reptiles have many special features which help them survive. Because they are cold-blooded they have to rely on getting heat from the sun or the air around them to get their body temperature right. As a result they spend most of their time basking. When it gets too hot they move into the shade. If they are too cold or too hot the reptile's body doesn't work properly and they can only moves about very slowly. Their dry, scaly skin stops water from leaving their body in the heat. The scales are thick pieces of skin which also gives them protection.

Being cold-blooded means that reptiles do not have to be always eating to keep their body warm. Most reptiles can get by on one large meal a week. Some reptiles eat plants but many are meat-eaters. Small or young reptiles eat insects. Larger reptiles eat fish, birds, small mammals, and other reptiles. Reptiles do not have chewing teeth and usually swallow their prey whole.

Most reptiles lay eggs on land. They dig holes and cover them over to hide them from other animals. Reptile eggs usually have a leathery shell. All young reptiles are able to feed themselves once they are born. Usually the parents leave them on their own and do not look after them.

Reptiles have many babies because most of them do not survive. They are the favourite food of many larger animals.

REPTILES



Set 2:1 ACTIVITIES

REMEMBERING - What are the facts

1. Name the four reptile families.
2. What do reptiles spend most of their time doing?
3. Write 2 questions like the ones above.
   You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture to show what a reptile has to do because it is cold-blooded.
   Include labels to explain what is happening in your drawing.
5. Use your heading and trigger words from one paragraph to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about "Remarkable Reptiles"
7. ***Comic Strip***
   Make a comic strip about reptiles with speech bubbles or captions.
   Include some information from the report.

ANALYSING - Identifying the features that help reptiles survive

8. ***Information Web***
   Make a list of the physical features and behaviours of reptiles mentioned in the report. Brainstorm how these things help them to survive.
   Show your ideas on an INFORMATION WEB.

   Example : **REPTILES** → cold-blooded → don't need much food

CREATING - Coming up with new ideas

9. ***The Ultimate Reptile***
   Design a new super reptile that could live anywhere
   - Draw this new creature and label all its useful features
   - Describe or draw its habitat and show what it needs to survive
   - What does it eat and how does it get its food
   - How does it protect itself from other animals

   Remember to include pictures and labels to explain your interesting ideas.




CROCODILIANS

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Crocodilian is the name given to a group of reptiles which include crocodiles, alligators, and caimans. There are only 23 different kinds of crocodilians.

All crocodilians have a similar shape, with four legs sticking out from the side of their body, a long tail, and a long snout. They are the largest and heaviest of all the living reptiles. The smallest crocodilians grow to 1.2 m (4 ft) and the biggest can be as long as 7 m (23 ft). All crocodilians can swim well but the bigger and heavier they are, the harder it is for them to move about on land.

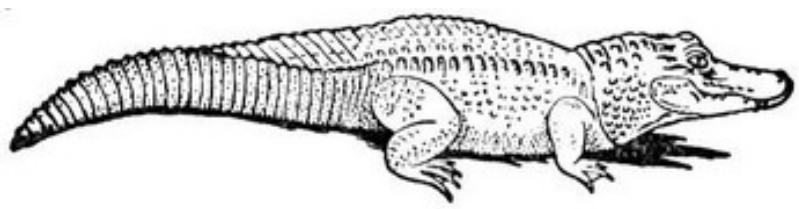
Crocodilians live in, or very close to, slow flowing rivers or lakes. A few live in saltwater and can be found swimming out to sea. Because they are cold-blooded, crocodilians live in countries that are hot. They spend most of their time warming up in the sun, or in the water cooling off. Because they are so heavy, floating around uses up less energy than moving around on land.

Crocodilians will eat anything that they can catch. Smaller crocodilians eat mainly fish. Larger crocodilians eat birds, turtles, and large mammals. They usually attack their prey from the water, and can move very quickly over a short distance. They tire very easily and can take a long time to recover. They swallow every bit of their prey. Bone and feathers are dissolved in the stomach.

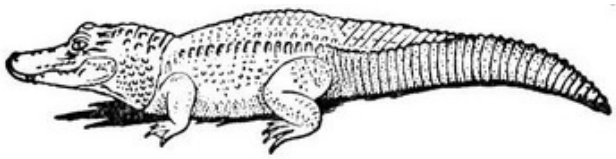
Crocodilians build nests on dry land and lay eggs. They are the only reptiles that care for their young. The mother will guard her nest for 3 months until the eggs are ready to hatch. Once the babies are born, they stay with the mother for more than a year. Baby crocodilians are less than 25 cm (10 in) long but grow quickly in their first three years. They can live for up to 50 years in the wild.

Even with their mother looking after them, only one out of every hundred young crocodilians will survive to be fully grown. Owls, snakes, fish, and other crocodilians eat them. Once they are over one metre (3 ft) long they are not bothered much by predators.

Crocodilians have always been hunted for their skins. They are made into shoes, and handbags. Many countries have now passed laws to protect them.



CROCODILIANS



Set 2:2 ACTIVITIES

REMEMBERING - What are the facts

1. Name the three different kinds of crocodilians mentioned in the report.
2. How big are fully grown crocodilians?
3. Write 2 questions like the ones above.
   You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture to show you understand how crocodilians spend their day.
   Include labels of the different parts mentioned in the report.
5. Use your heading and trigger words from one paragraph to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about crocodilians.
7. ***Comic Strip***
   Make a comic strip about crocodilians with speech bubbles or captions.
   Include some information from the report.

ANALYSING - Identifying the features that help crocodilians survive

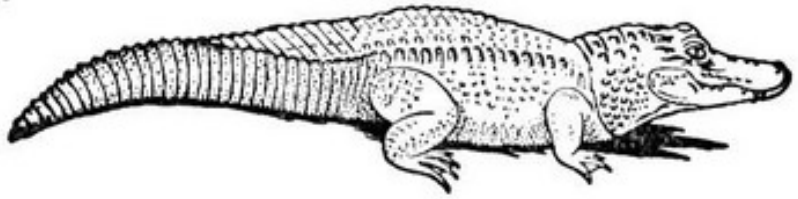
8. ***Information Web***
   Make a list of the physical features and behaviours of crocodilians that are mentioned in the report. Brainstorm how these things help them to survive. Show your ideas on an INFORMATION WEB.

   Example : **CROCODILIANS** → cold-blooded → use water to cool off

CREATING - Coming up with new ideas

9. ***The Ultimate Crocodilian***
   Design a new super crocodilian that could live anywhere
   - Draw this new creature and label all its useful features
   - Describe or draw its habitat and show what it needs to survive
   - What does it eat and how does it get its food
   - How does it protect itself from other animals

   Remember to include pictures and labels to explain your interesting ideas.



NILE CROCODILES

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

The Nile crocodile is a reptile and belongs to the family of crocodilians. They are very clever and very vicious.

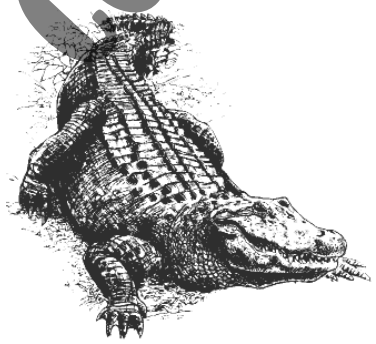
Nile crocodiles live in the hot parts of lowland Africa where there are lots of rivers and swamps. They can be found close to the sea where the water is salty. They spend their day lying in the sun or cooling off in the water.

Nile crocodiles have lots of physical features that help them survive. The plates on its back and tail are almost as strong as steel. They use their large powerful tail to push themselves through the water at great speed and to knock prey off their feet. The jaw is narrow and v-shaped, designed for gripping and tearing prey. They have great eyesight and can hear well. They can also feel vibrations in the water.

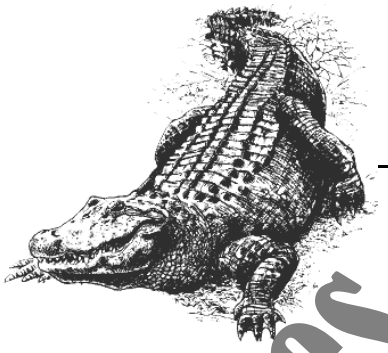
Nile crocodiles are best known for attacking large animals that come to the water to drink. The crocodile waits in the shallow water with just its eyes and nose above the water. With a swish of their tail they explode out of the water and grab their prey around the neck or by a leg. Then they drag them under the water and drown them. Holding the dead prey in their mouth, they twist backwards and forwards until large pieces break off. Then they tip their head back and swallow without chewing. Women washing clothes in the rivers of Africa are sometimes caught and eaten by the Nile crocodile.

In the breeding season the crocodile digs out a nest in the sand with her back feet. She lays ten to seventy eggs and covers them over. The mother will stay nearby for the next three months as the babies grow. The hatchlings call to her when they are ready to hatch. The mother will dig them out and carry them to the water in her mouth. They will stay close by the mother for about a year.

Even with the mother guarding the nest, half the eggs are taken by baboons, hyenas, and lizards. Many young Nile crocodiles will be eaten in their first year, often by other crocodiles. Because they are so strong and powerful, fully grown Nile crocodiles are usually left alone by other animals. Elephants will sometimes trample them if the crocodile attacks their babies. Hippos will sometimes attack them and can do lots of damage with their huge teeth.



NILE CROCODILES



Set 2:3 ACTIVITIES

REMEMBERING - What are the facts

1. Where do you find Nile crocodiles?
2. What do Nile crocodiles use their tail for?
3. Write 2 questions like the ones above.
   You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw pictures to show how a Nile crocodile hunts and kills its prey.
   Include labels to explain what is happening in your drawing.

5. Use your heading and trigger words from one paragraph to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about the life of a Nile crocodile.

7. ***Comic Strip***
   Make a comic strip about a Nile crocodile with speech bubbles or captions.
   Include some information from the report.

ANALYSING - Identifying the features that help Nile crocodiles survive

8. ***Information Web***
   Make a list of all the physical features and behaviours of the Nile crocodile that are mentioned in the report. Brainstorm how these things help them to survive. Show your ideas on an INFORMATION WEB.

   Example :  → powerful tail → good for swimming

EVALUATING - How safe is the Nile crocodile

9. ***Predator Rating—***give the Nile crocodile a predator rating from 1 to 10
   1 = no danger from predators 10 = very high danger from predators
   Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

10. The Nile crocodile is a very successful predator.
    Design a new predator that would make life difficult for the Nile crocodile. Think about the features the predator would need to be able to catch and kill Nile crocodiles.

    Remember to include pictures and labels to explain your interesting ideas.

AMERICAN ALLIGATORS

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

The American alligator is a reptile belonging to the family of crocodilians. There are only two types of alligator, the American alligator, and the Chinese alligator which is much smaller.

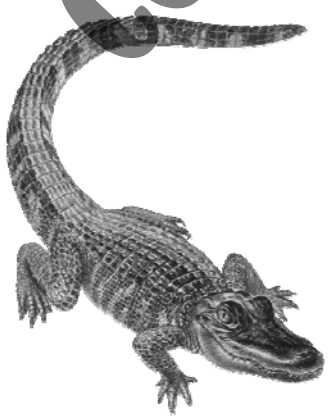
The American alligator can only be found in the rivers, swamps, and wetlands near the southeast of the United States. They can survive in much colder temperatures than crocodiles but the water must be fresh not salty.

American alligators are not as big as crocodiles and have wider and shorter u-shaped heads. This helps them to push their way through the bushy plants in the marshes and swamps where they live. Their jaws are more powerful and designed for crushing bones rather than gripping and tearing. They are usually dark gray or black and blend in with their habitat.

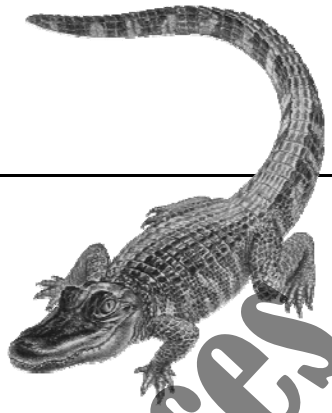
In winter the water may freeze over. Because they are cold-blooded, the alligators slow right down and lose interest in food. They will stay under the water because the deeper water is warmer than the winter air above. They build underwater dens in the swamps or in the banks of river. They breathe by poking their nose through the ice to make a breathing hole.

Alligators build nests above the ground. They use plants and mud and take great care. It may take several weeks to build a nest and they will often come back to the same place next year. They lay 35-40 eggs and cover them over with mud and plants. As with all crocodilians, they watch over their nest and look after their babies for the first year.

American alligators have no predators except man. In the last 100 years, American alligators have been in danger of disappearing. Man hunted them for the skin which is perfect for making leather. Now laws have been passed which control the of hunting alligators. There are now alligator farms where alligators are especially grown for their skins. This means that alligators in the wild are no longer at risk. However, more and more people are coming to live in places where the alligator lives and are changing the habitat. Alligators are seen crossing roads looking for new water holes and are found sheltering in peoples swimming pools. As they become used to humans they become more dangerous.



AMERICAN ALLIGATORS



Set 2:4 ACTIVITIES

REMEMBERING - What are the facts

1. Where do you find American alligators?
2. In what ways are alligators different from crocodiles ?
3. Write 2 questions like the ones above.
   You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

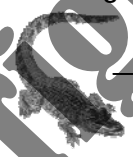
4. Draw a picture to show what the alligator does when the pond or river that it is living in freezes over during winter.
   Include labels to explain what is happening in your drawing.
5. Use your heading and trigger words from one paragraph to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about the life of an American alligator.
7. ***Comic Strip***
   Make a comic strip about an alligator with speech bubbles or captions.
   Include some information from the report.

ANALYSING - Identifying the features that help alligators survive

8. ***Information Web***
   Make a list of all the features and behaviours of the American alligator that are mentioned in the report. Brainstorm how these things help them survive. Show your thinking as an INFORMATION WEB.

Example :  → u-shaped head → good for pushing through bushy plants

EVALUATING - How safe is an American alligator

9. ***Predator Rating—***give American alligators a predator rating from 1 to 10
   1 = no danger from predators 10 = very high danger from predators
   Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

10. People are taking over more and more of the American alligators habitat. Suggest some changes that could be made so that people and alligators can live alongside each other. Think about
    - keeping pets and small children safe
    - providing a better habitat for alligators

Remember to include pictures and labels to explain your interesting ideas.

TURTLES

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Turtle is the name given to one of the four main groups of reptiles. There are three different families of turtles; tortoises, freshwater turtles, and sea turtles.

These different types of turtle have different habitats. Tortoises live on land and dig shallow burrows to sleep in. Freshwater turtles spend their time in and around slow-moving water. They make burrows on land or dig into the sandy, muddy bottom of the pond, lake, or stream where they live. Sea turtles spend all their time in the salt water ocean and only the females come ashore to lay their eggs.

As with all reptiles, turtles are cold-blooded. This means that they depend on the sun to heat their bodies. All reptiles have dry, tough skin which is waterproof. Turtles are the only reptiles where this skin has become a bony shell. They have an upper shell and a lower shell with the legs and head poking out between the two. Fully grown turtles can be as small as 10 cms (4 in) in length or as big as two metres (6 feet).

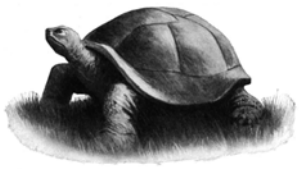
Tortoises mainly eat plants (herbivores). Freshwater turtles and sea turtles often eat insects, snails and other small water animals when they are young but become herbivores when they are fully grown. Some larger freshwater turtles are meat-eaters. Turtles do not have teeth. Instead their jaws are like a sharp beak which they use to kill small prey or to chop plants into small pieces. They swallow their food without chewing it.

Turtles are not very social animals. Sometimes there will be large numbers of the same species living in one place. They can be seen basking in the sun together but they do not have anything to do with each other.

Reptile eggs are soft and leathery. All turtles lay their eggs on land. Some turtles lay only one or two eggs. Others can lay up to 150. They dig nests, cover the eggs, and then leave never to return. When the baby turtles hatch they have to dig their way out. They grow quickly in the first few years. It takes between 5 - 20 years for them to become adults and have babies of their own. Adult turtles have a long life, with some species living to well over 100 years.

Many turtles nests are destroyed by animals, birds, and snakes who feed on the eggs. Once the eggs hatch very few survive as young turtles are very tasty and easy to catch. As they get bigger their shells provide protection from predators. Most turtles are able to pull their legs and head into their shell and seal it off.

In some countries turtles are hunted for food and for their shells which are used as decorations. This means that some species have become very rare. Where there are lots of people there is always damage to turtle habitats. The air and the water becomes polluted and habitats are destroyed to make way for houses and farms.


TURTLES

Set 3:1 ACTIVITIES


REMEMBERING - What are the facts

1. Name the three different types of turtles.
2. Describe the habitats of the three different types of turtles.
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture to show how turtles eat their food.
   Include labels to explain what is happening in your drawing.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about "Terrific Turtles".
7. ***A day in the life of a TURTLE***
   Use the information in the report to describe a day in the life of a turtle.
   You can do this by writing a turtle story or as a turtle comic strip with captions.
   Try to include as many facts about turtles as you can.

ANALYSING - Identifying the features that help turtles survive

8. ***Information Web***
   List all the physical features and behaviours of turtles mentioned in the report.
   Brainstorm ways which these features and behaviours help turtles survive.
   Present this information as an INFORMATION WEB.

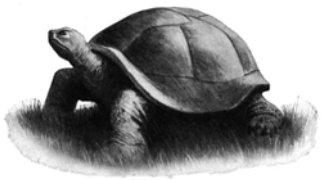
Example : **TURTLES** → sharp beak → Used to kill small animals

CREATING - Coming up with new ideas

9. ***The Ultimate Turtle***
   Design a new super turtle that could easily survive in the sea and on land.
   - Draw this new creature and label all its useful features
   - Describe its habitat and what it needs to survive
   - What does it eat and how does it get its food
   - How does it protect itself from being preyed upon by other animals and the threats of man

Remember to include diagrams, labels, and descriptions to explain your interesting ideas.



THE GIANT TORTOISE

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

The giant tortoise is a reptile and one of the largest members of the turtle family.

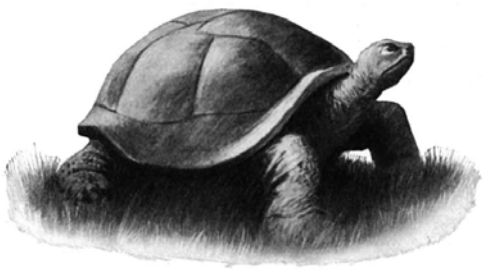
Unlike most turtles, the giant tortoises lives on land and its body is not designed for swimming. It has thick pillar-shaped legs which are needed to support its large body and its heavy shell made of bone. There are claws on its toes to make it easier for them to walk around on land and for digging and burrowing. The head and legs are too big to completely withdraw into the shell but they still attempt to do this when they feel threatened.

They like a hot climate with plenty of trees for shelter from the midday heat and vegetation for food. As with all reptiles they need heat from the sun to raise their body temperature so that they can survive. They also need to find shade to avoid being baked alive in their own shell when it gets too hot. At night, when it gets cold, they dig themselves into some soft ground or vegetation. They are found only on a few tropical islands near the equator.

Giant tortoises eat anything that is green including cactus, fruits, leaves and grasses. Where there are plenty of plants they will eat from the ground. If not they will reach up and eat leaves from low tree branches. Some will even stand up on their back legs which is very risky because if they topple over onto their back there is no way they can right themselves. They are very good at storing water inside their bodies which helps them to survive the long dry season.

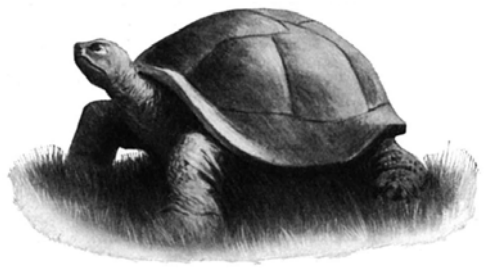
Giant tortoises usually live on their own but are sometimes found in groups around waterholes or in the shade sleeping. They are very peaceful animals and rarely fight. When competing for a female mate they have neck stretching competitions. The one who can stretch its head the highest wins the right to mate with the female.

In the 19th century sailors discovered that giant tortoises were a very valuable food supply because they could survive for months without food and water. They could catch them easily, flip them on their back and stack them in the hold of their ship. This gave them a supply of fresh meat on long ocean voyages. More recently giant tortoises have been hunted for oil. Because of this there are very few remaining and these are now carefully protected.



Giant tortoises have very few natural predators, but the introduction of other animals to their island habitat has created problems. Goats, introduced in 1958, have eaten a lot of the plant food that tortoises rely on, and tortoise eggs and baby tortoises are easy prey for wild pigs, dogs, cats and rats.

THE GIANT TORTOISE



Set 3:2 ACTIVITIES

REMEMBERING - What are the facts

1. Where do you find giant tortoises?
2. Why does the giant tortoise need shade?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture to show what a giant tortoise does when it feels in danger.
   Include labels to explain what is happening in your drawing.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about the giant tortoise.
7. ***A day in the life of a giant tortoise***
   Use the information in the report to describe a day in the life of a giant tortoise.
   You can do this by writing a giant tortoise story or as a comic strip with captions.
   Try to include as many facts about the giant tortoise as you can.

ANALYSING - Identifying the features that help the giant tortoise survive

8. ***Information Web***
   List all the physical features and behaviours of the giant tortoise mentioned in the report.
   Brainstorm ways which these features and behaviours help the animal to survive.
   Present this information as an INFORMATION WEB.

Example :  → store water inside their body → can survive the long dry season

EVALUATING - How safe is the giant tortoise

9. ***Predator Rating—***give the giant tortoise a predator rating from 1 to 10
   1 = no danger from predators 10 = very high danger from predators
   Give reasons for your rating using information from the report or your own ideas.

10. ***Extinction Rating—***give the giant tortoise an extinction rating from 1 to 10
    1 = no risk of extinction 10 = very close to extinction
    Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

11. ***Giant Tortoise Upgrade—overcoming threats***
    Make some improvements to the giant tortoise's physical features and behaviour to help it survive the following changes to its habitat.
    - It becomes very dry and all the trees and shade on the island die.
    - A new predator is introduced that is strong enough to tip the tortoise onto its back.

    Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

12. ***Action Plan—save the giant tortoise***
    The giant tortoise is in danger. Design a poster for tourists visiting the islands where they live, to make them aware of the problems facing the giant tortoise.

GREEN TURTLES

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

The green turtle is a reptile and belongs to the sea turtle family.

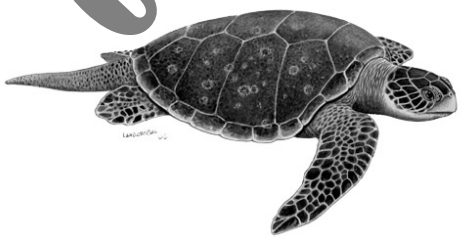
The green turtle's body is flattened to help it swim easily in the sea. It's front flippers are shaped like paddles to help it pull itself through the water. It uses its back flippers to help it steer. Sea turtles can stay under water for a long time but must come up for air. They are 4-5 cm long (2-3 in) when they are born and may grow to be 100cm (3 ft) and weigh 150 kg (330 lbs)

The green turtle lives in warm ocean waters throughout the world. For up to the first ten years of their life, young turtles live far out to sea carried along by ocean currents. Once they reach a certain size they choose a feeding ground close to the shore. When it is time to breed they will travel 1000 km to a nesting beach. This is often the beach where they were born. After laying their eggs they will return to their feeding ground.

Young turtles drift on the ocean currents and eat small sea animals. Fully grown green turtles eat seaweeds and seagrasses that grow on the seabed in the shallow water close to the shore.

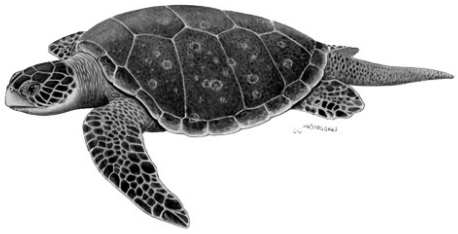
Green turtles breed when they are eight to ten years old. The female comes ashore at night to lay her eggs. She uses her flippers to drag herself over the sand. She scrapes away a hole above the high tide mark and lays about 100 soft, white, leathery eggs in the hole. She covers them with sand and returns to the sea before the sun rises. She does not stay to guard her eggs. After two months the young turtles are ready to hatch and use a sharp egg tooth to break out of the shell. They push their way through the sand to the surface and run across the beach towards the sea.

Crabs, birds, and wild animals all like to eat turtle eggs as well as baby turtles. Young turtles leave their nests at night when there are not so many predators about. Once they reach the sea the young turtles are in danger from the fish that feed off them. From a nest of one hundred only about two turtles will grow up to have young of their own. Those that do survive may live for 50 years.



Green turtles are hunted for food, for turtle oil which is used to make cosmetics, and for turtle skin to make shoes. As the world's human population increases there are fewer and fewer quiet beaches for green turtles to nest. They also get caught in fisherman's nets, collide with boats and the pollution in the ocean is ruining their feeding grounds.

GREEN TURTLES



Set 3:3 ACTIVITIES

REMEMBERING - What are the facts

1. Where do green turtles live for their first ten years?
2. What do fully grown green turtles eat?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture or pictures to show what the female green turtle does when it is time to lay her eggs.
   Include labels to explain what is happening in your drawing.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about the green turtle.
7. ***A day in the life of a green turtle***
   Use the information in the report to describe a day in the life of a green turtle. You can do this by writing a green turtle story or as a comic strip with captions. Try to include as many facts about green turtles as you can.

ANALYSING - Identifying the features that help green turtles survive

8. ***Information Web***
   List all the physical features and behaviours of the green turtle mentioned in the report. Brainstorm ways which these features and behaviours help the animal to survive. Present this information as an INFORMATION WEB.

   Example :  → has a flattened body → good for swimming

EVALUATING - How safe is the green turtle

9. ***Predator Rating—***give the green turtle a predator rating from 1 to 10
   1 = no danger from predators 10 = very high danger from predators
   Give reasons for your rating using information from the report or your own ideas.

10. ***Extinction Rating—***give the green turtle an extinction rating from 1 to 10
    1= no risk of extinction 10 = very close to extinction
    Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

11. ***Green turtle Upgrade—overcoming threats***
    Make some improvements to the green turtle's physical features and the way it behaves to help it survive the following changes to its habitat.
    - There are no safe, quiet nesting beaches for the turtles to lay their eggs.
    - There is a huge increase in the number of fishing nets in the green turtle's feeding grounds

    Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

12. ***Action Plan—save the green turtle***
    Green turtles are in danger. Design a poster, a bumper sticker, a beach sign to make people aware of the problems facing green turtles.

MUD TURTLES

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Mud turtles are freshwater turtles that spend most of their time in water.

These are small turtles which grow to about 12 cm (5 in) long. The shell is usually dull green or yellow-brown. The underside of the shell is yellow and has two hinges so that the front and back can close when the turtle wants to hide inside its shell. They have webbed feet to help them swim as they spend a lot of their time in the water. They have claws on their toes to help them move around on land.

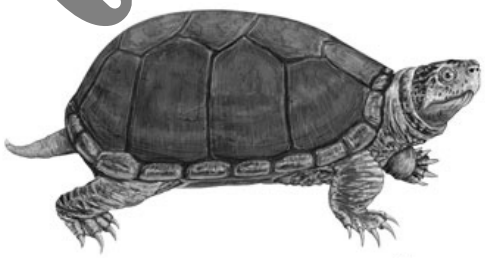
Mud turtles can be found in Mexico, Central and South America and Africa, wherever there is water. They like ponds, marshes, and drainage ditches, but the water has to be quite shallow and slow-moving. They are not good swimmers and have to be able to get to the surface to breathe. They like water that has a sandy or muddy bottom. If their pond dries up they will burrow into the mud or walk overland to find a new watery home. They are very good at finding new water. When it gets cold in winter they hibernate. To do this they dig deep into the mud in the bottom of the pond or stream, or they will find damp swampy places like rotted logs, or piles of leaves.

They eat insects, tadpoles and small fish as they walk along the bottom of the water that they live in. They will also eat water plants but this is not their first choice. They seek out food by sight, smell or touch. They are unable to swallow food in the air so they must eat their food underwater.

Mud turtles are ready to breed after 5 to 7 years. Eggs are laid in nests out of the water. They lay 1 to 6 eggs in a hole in the sand or under grass and leaves. The eggs take five months to hatch and the babies are left to fend for themselves. The mud turtles normal life span is 15-30 years.

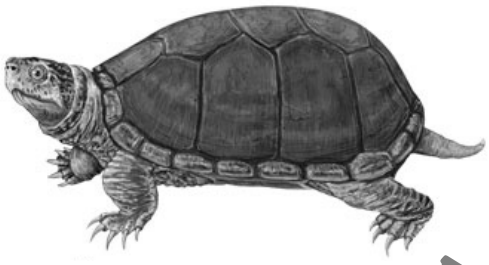
Mud turtles main enemies are raccoons and birds. Being able to hide in its shell is a very good way of defending itself against these predators. They can also release a horrible smell which discourages attackers. They will also bury themselves in the mud and remain there for a long time until danger passes.

Mud turtles are only of interest to man as pets. This has not significantly affected their numbers. However man pollutes the waterways where they live and destroys their habitat by building houses and making farms. Many mud turtles are killed by passing cars as they cross roads in search of nest sites or water.



MUD TURTLES

Set 3:4 ACTIVITIES



REMEMBERING - What are the facts

1. What colour is the mud turtle's shell?
2. How big do mud turtles grow?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture of a mud turtle in the habitat described in the report.
   Include labels to explain what is happening in your drawing.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about mud turtles.
7. ***A day in the life of a mud turtle***
   Use the information in the report to describe a day in the life of a mud turtle.
   You can do this by writing a mud turtle story or by making a comic strip with captions.
   Try to include as many facts about mud turtles as you can.

ANALYSING - Identifying the features that help mud turtles survive

Information Web

8. List all the physical features and behaviours of the mud turtle mentioned in the report.
   Brainstorm ways which these features and behaviours help the animal to survive.
   Present this information as an INFORMATION WEB.

Example :  → webbed feet → helps them swim

EVALUATING - How safe is the mud turtle

9. ***Predator Rating—***give mud turtles a predator rating from 1 to 10
   1 = no danger from predators 10 = very high danger from predators
   Give reasons for your rating using information from the report or your own ideas.

10. ***Extinction Rating—***give mud turtles an extinction rating from 1 to 10
    1= no risk of extinction 10 = very close to extinction
    Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

11. ***Mud Turtle Upgrade—overcoming threats***
    Make some improvements to the mud turtle's physical features and the way it behaves to help it survive the following changes to its habitat.
    - There is a drought and all the ponds start drying up
    - A new predator arrives with a very sharp beak that can crack open the mud turtle's shell

    Remember to include a heading that will get people's attention, information, and drawings.

12. ***Action Plan—save the mud turtles***
    Mud turtles are important. Design a newspaper advertisement to make people more aware of the way they are destroying the mud turtle's habitat.

LIZARDS

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Lizards make up the largest group of reptiles. There are almost 4,000 different species known and probably many yet to be discovered.

Lizards can be found in more places than any other type of reptile. Tropical rainforests are the ideal habitat and huge numbers of lizards can be found high up in the tree canopy on the trunks of trees, down on the ground, and under leaf litter. Because they are cold-blooded, they need to bask in the hot sun to keep their bodies at the right temperature. Many can flatten themselves to expose themselves as much as possible to the suns rays. In the hot tropics they can be active at night because of the warm night air and the warmth from surfaces heated during the day. There are some lizards that live high up in the mountains, but they need to hibernate in winter to avoid the worst of the cold.

There is a huge variety in the shape and colour of lizards. Most have four legs, each with five clawed toes. Their legs stick out from the side of the body so the body moves in s-shapes curves when it walks or runs. Many lizards have a wide range of additional features to suit their habitat and lifestyle and help them survive. This may include frills and sails to change their appearance and make them look more threatening, to help them camouflage, or to increase their body surface area making it easier to warm up quickly in the sun. Lizards that live in trees have feet and tails that are adapted for climbing. Some can run very fast on all four legs. Some move even quicker using just their hind legs with their front legs raised.

One of the reasons that there are so many lizards is that they are very adaptable and will eat whatever food is available. Most lizards are small and feed on insects. They are usually active predators, hunting down their prey and capturing it with a lightening dash or by shooting out a long, sticky tongue. A few are large dangerous carnivores. Lizards need water to survive. Many drink from pools or puddles, or get water from dewdrops or condensed fog. In very dry places they get the water they need from the food they eat.

In the food chain, lizards are a very important supply of food for birds, snakes, and mammals, all of which are capable of catching even the most alert, fast-moving lizards by day and night. The main reason lizard species survive is because there are just so many of them. Matching themselves to the colour of their background so that they are not noticed is a very important defense against predators. Small lizards often show their tail when threatened to draw a predators attack away from its head. As the predator pounces on the tail, it can contract its muscles causing it to snap off. The tail thrashes around distracting the attacker while the lizard escapes. The lizard is then able to grow a new tail. Larger, more powerful lizards find it easier to defend themselves.

Most lizards lay eggs with soft leathery shells. Baby lizards are independent once they hatch and very few parents show any interest in them. As soon as they are born they face a wide range of predators and few of the young survive to adulthood. Lizards that live in very cold regions give birth to live young which allows the mother to keep the growing babies warm inside her body. The life span of lizards is 5-10 years.

Lizards have an important place in the food chain. They help to control the pest population of insects and rodents that destroy food crops. Man hunt for their beautiful skins and they are sold in large numbers as pets. Human development is also polluting and destroying the rainforests, grasslands, and desert habitats where lizards live.




LIZARDS

Set 4:1 ACTIVITIES

REMEMBERING - What are the facts

1. How many species of lizards have been discovered?
2. Name the three different rainforest habitats where large numbers of lizards can be found.
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture or diagram to show how a lizard uses its tail to escape from predators.
   Include labels to explain what is happening in your drawings.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem or rap) about "Loopy lizards".
7. ***A day in the life of a lizard***
   Use the information in the report to describe a day in the life of a lizard.
   You can do this by writing a lizard story, a lizard diary, or as a lizard comic strip with captions.
   Try to include as many facts about lizards as you can.

ANALYSING - Identifying the features that help lizards survive

8. ***Information Web***
   List all the physical features and behaviours of lizards mentioned in the report.
   Brainstorm ways which these features and behaviours help lizards survive.
   Present this information as an INFORMATION WEB.

   Example : **LIZARDS** → frills and sails → catch the heat from the sun

CREATING - Making improvements

9. ***The Ultimate Lizard***
   Design a new super lizard that would have an even better chance of surviving in the wild.
   Draw this new creature and label all its useful features.
   Here are some ideas to get you started ...
   - New improved frills and sails that catch the heat from the sun (solar panels)
   - Better ways to avoid predators
   - Improved feet and tails to help them move about in trees.

   Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

THORNY DEVILS

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

The thorny devil is a small reptile belonging to the lizard family.

The thorny devil can be found in the desert of the Australian outback. It likes sandy soil in which it is able to dig. As with all reptiles, the thorny devil depends on the surrounding heat to keep it working properly. It will create shallow underground burrows beneath small shrubs or grasses to provide shelter from the heat during the day. At night the desert gets very cold so it will dig itself into the sand to stay warm. Thorny devils do not move about much during the colder winter months and the hottest summer months. During their more active months, they have been observed to travel as far as a kilometre (over half a mile) in a day.

The thorny devil has a very strange appearance. It grows to only 20 cm (8 in) in length and is covered with sharp, conical spines that make it look like a piece of walking barbed wire. It normally has yellow and brown markings which blend into the surrounding sand and it holds its curved tail high above the ground. When moving it looks like a dead leaf blowing in the wind as it lifts each leg slowly, swaying backwards and forwards. It will freeze in place while walking, often with one foot off the ground.

In its very harsh, dry, desert habitat the thorny devil has a very clever way of collecting water. During the night, as the temperature drops, dew will form on the lizard's skin. Thousands of tiny grooves between the spines allow the water to be channelled to the lizard's mouth. Once the water is in the grooves the lizard can suck it into its mouth by gulping. It also has very unusual food habits. It will only feed on small black ants and needs a large number, thousands in fact, to make up a meal. When it finds a nest or an ant trail, it will sit for hours flicking up one ant at a time with its sticky tongue. It can eat about 45 ants per minute.

As with most reptiles, there is some gathering of individual thorny devils during the mating season, but for most of the time they are solitary animals. The female will lay a clutch of three to ten eggs during spring in a nesting burrow about 30 cm (1 ft) underground. The tunnel is carefully filled in by the female making sure no sign of the nest is left behind. The young lizards will hatch after three to four months. They will be fully grown after three years and may live for about 20 years.

Because of its size and slow movements the thorny devil would normally be easy prey. However, it has some effective ways of avoiding predators. Along with the way it moves, it can melt into the background when predators approach by changing its colour. The large spines covering its body are intended to make it look very unappetizing and unpleasant to eat. If it is threatened it will tuck its head between its front legs, showing a large, particularly spiny lump which looks like a false head. This protects the real head and makes it very difficult to swallow. It can also puff itself up to look much bigger than it actually is. The main predators are bustards, a bird similar in size and shape to a chicken, which attacks from above, and goannas, a much larger lizard. As well as preying on the adult thorny devil, goannas also dig up their eggs.

The thorny devil has little interaction with man. It lives in very remote desert areas and therefore its habitat is not particularly threatened by man's activities.

THORNY DEVILS

Set 4:2 ACTIVITIES

REMEMBERING - What are the facts

1. Where can you find the thorny devil?
2. How does the thorny devil find shelter from the heat in the desert during the day?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture or diagram to show how the thorny devil collects water.
   Include labels to explain what is happening in your drawing.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem or rap) about the life of a thorny devil.
7. ***A day in the life of a thorny devil***
   Use the information in the report to describe a day in the life of a thorny devil.
   You can do this by writing a thorny devil story, a thorny devil diary, or as a thorny devil comic strip with captions.
   Try to include as many facts about thorny devils as you can.

ANALYSING - Identifying the features that help thorny devils survive

8. ***Information Web***
   List all the physical features and behaviours of the thorny devil mentioned in the report.
   Brainstorm ways which these help the animal to survive.
   Present this information as an INFORMATION WEB

   Example :  → covered in spikes → doesn't look good to eat

EVALUATING - How safe is the thorny devil

9. ***Predator Rating***—give thorny devils a predator rating from 1 to 10
   1 = no danger from predators 10 = very high danger from predators
   Give reasons for your rating using information from the report and your own ideas.

10. ***Extinction Rating***—give thorny devils an extinction rating from 1 to 10
    1 = no risk of extinction 10 = very close to extinction
    Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

11. ***Thorny devil Upgrade—overcoming natural threats***
    Make some adaptations to the thorny devil's physical features, or the way they behave, to make them more competitive in nature.
    Here are some ideas to get you started ...
    - A better way to eat ants
    - Protection from attacks from above by bustards

    Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

12. ***Action Plan—saving the thorny devil from human threats***
    - Make a list of the ways that human activity could endanger thorny devils
    - Write an action plan—the steps you would have to take to protect the species
    - Design some of the following to get your message across to the world about the need to protect the thorny devil
      - a radio, TV, or newspaper advertisement, billboard signs, bumper stickers

KOMODO DRAGONS

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

The komodo dragon is the world's largest and most vicious lizard.

Komodo dragons can only be found on a small group of hilly, volcanic islands in Indonesia. The islands are covered with tall grass, and scraggly bits of jungle. This appears to be the ideal habitat for the komodo dragon.

The body shape of the Komodo dragon makes it easy to recognise as a lizard. It has a long neck, stubby bowed legs, and a huge thick tail, longer than its body. As it walks it sways its head from side to side. It's scaly skin is normally a sandy brown colour which is great for hiding. While most lizards average 10 to 20 cm (4-8 in) long, komodo dragons grow to an average length of 2.5 m (8 ft) and an average weight of 91 kg (200 lb), more the size of a crocodile than a lizard.

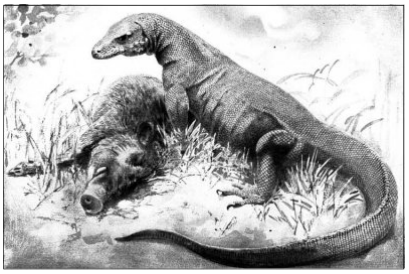
Komodo dragons are mainly scavengers, quite happy to feed on meat that is already dead. However, they are also fearless predators and will attack and eat any live prey they come across. Their favourite food is deer and wild pig, but they will also eat young komodo dragons. A komodo dragon will hide in the long grass for hours until something comes along. It can move very quickly over a short distance and will explode from its hiding place, knocking down an animal much bigger than itself. It seizes its prey with its jaws and vicious claws. It will rip off large pieces with its 60 razor sharp teeth, especially designed for tearing flesh. Every bit of the prey is swallowed including bones and fur. The stomach expands easily allowing it to eat huge amounts in a single meal. A 46 kg (100 lb) komodo dragon has been observed to eat a 41 kg (90 lb) pig in 20 minutes. The komodo dragon's mouth is full of highly infectious bacteria. If the prey manages to survive the first attack and escape, it will usually die quickly as it's wounds become infected. The komodo dragon will patiently track the scent of the wounded prey and wait until it dies from the infected bite.

Komodo dragons live alone, sleeping in shallow burrows overnight when it is usually too cold for them to be active. Males will fiercely defend the hunting area around their burrow. They sometimes gather in groups to feed on a dead animal. When this happens in the breeding season, the males will fight over females by grappling with one another while standing on their hind legs.

The female will lay her eggs in a shallow burrow. Clutches contain about 20 eggs which will take eight months to hatch. Once they hatch the young dragons are on their own. Dragons take up to five years to become adults, and may live for up to 50 years.

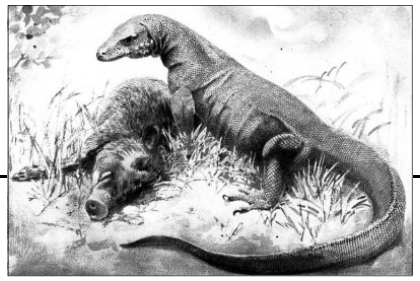
On the small islands where they live, the komodo dragon is at the top of the food chain. There are no large mammals to threaten the adults or other reptiles that can prey on it. However the young are always at risk and in this case the biggest threat comes from their own kind. For this reason young komodo dragons spend much of their first few years in trees, where they are relatively safe.

Once they were discovered in 1912, komodo dragons became the target of hunters. They were killed for their skins and their unusual feet, and sold alive to zoos and private buyers. The number of dragons remaining is now very small. Selling a komodo dragon is no longer Allowed and it is easy to protect them because they are only found on a few small islands close together. However, this also means that if there was a natural disaster such as a volcanic eruption in the area, the entire species could easily be wiped out.



KOMODO DRAGONS

Set 4:3 ACTIVITIES



REMEMBERING - What are the facts

1. What is a scavenger?
2. Name the 3 animals that the komodo dragon likes to eat?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw pictures or diagrams to describe a komodo dragon's hunting strategy.
   Include labels to explain what is happening in your drawings.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem or rap) about the life of a komodo dragon.
7. ***A day in the life of a komodo dragon***
   Use the information in the report to describe a day in the life of a komodo dragon.
   You can do this by writing a komodo dragon story, a komodo dragon diary, or as a komodo dragon comic strip with captions.
   Try to include as many facts about komodo dragons as you can.

ANALYSING - Identifying the features that help komodo dragons survive

8. ***Information Web***
   List all the physical features and behaviours of the komodo dragon mentioned in the report.
   Brainstorm ways which these features and behaviours help the animal to survive.
   Present this information as an INFORMATION WEB.

Example :  → sandy brown coloured skin → good for hiding

EVALUATING - How safe is the komodo dragon

9. ***Predator Rating***—give komodo dragons a predator rating from 1 to 10
   1 = no danger from predators 10 = very high danger from predators
   Give reasons for your rating using information from the report or your own ideas.

10. ***Extinction Rating***—give komodo drgaons an extinction rating from 1 to 10
    1= no risk of extinction 10 = very close to extinction
    Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

11. ***Komodo dragon Upgrade—overcoming natural threats***
    Make some changes to the physical features of the komodo dragon, or the way they behave, to help them adapt to the following changes to their habitat
    - A population explosion amongst komodo dragons—not enough food to go around
    - Their prey become immune to the komodo dragons infectious bite
    - There is a volcanic eruption on the island

    Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

12. ***Action Plan—saving the komodo dragon from human threats***
    - Make a list of the ways that human activity could endanger komodo dragons
    - Write an action plan—the steps you would have to take to protect the species
    - Design some of the following to get your message across to the world about the need to protect komodo dragons
      - a radio, TV, or newspaper advertisement, billboard signs, bumper stickers

JACKSON'S CHAMELEON

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

The Jackson's chameleon is an African chameleon belonging to the chameleon family of lizards.

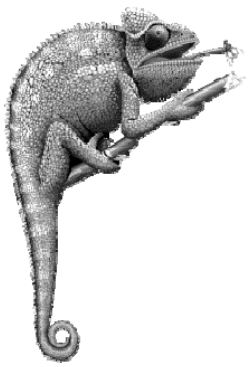
Chameleons are very unusual, 'goofy' looking lizards with many interesting features to help them survive. They have two bulging eyes which can each focus on different objects at the same time and allow the chameleon to see everything around it. When resting in the sunlight the chameleon will tilt and flatten its specially designed, leaf-shaped body to get the most from the sun. It has four spindly legs and each foot has five toes that are fused into a group of two and a group of three which ends up looking like a pair of tongs. This allows them to grip tightly onto tree branches. Each toe has a sharp claw to grip onto tree bark when climbing. The long tail is often rolled up but can be used to grip branches for support. Chameleons have very long tongues (one and a half times the length of their body) which they can shoot out of their mouth at speeds faster than the eye can see. The Jackson's chameleon is a mid-sized chameleon, averaging about 40 cm (16 in) long.

Jackson's chameleons are found in large numbers in the humid, cooler mountains of Africa. They live in trees and bushes, preferring to be about two metres (7 ft) off the ground. They stay in the same location from day to day, moving only to get closer to prey or to move in or out of the sunlight. Changing plants involves considerable risk.

They feed throughout the day. As they are very slow moving, they rely on their remarkable vision, their excellent camouflage, and their main weapon, their sticky tongue, to catch food. They will sit completely still and watch for prey crossing their path. Flying and crawling insects are their main diet. When something is spotted, both eyes will focus onto it to help them aim. The tip of the tail is sometimes used to anchor onto a branch as it stretches towards the unsuspecting prey. The tongue them flicks out and grabs the prey with the help of a sticky suction cap on the tip of the tongue. The tongue is then whipped back into the chameleon's mouth where strong jaws crush the insect and it is swallowed. Water is collected by lapping drops off leaves and there must be a daily supply either from rainfall or dew.

These chameleons live a solitary lifestyle. More than one may be found on the same plant but they ignore each other and rarely get closer than 2 metres (7 ft). Males are territorial about their perch. They have three horns sticking out from the front of their head and they use these in gentle shoving matches with other male chameleons if they get too close. Rarely does any injury result.

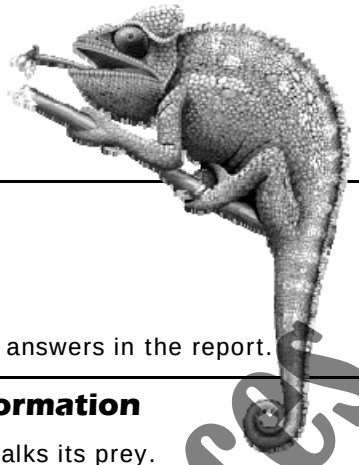
Most chameleons lay eggs but, because they live in a cooler climate, the Jackson's chameleon female retains the eggs inside her body. The average clutch size is 20. The young are born one at a time, still in an egg sac, and drop to the ground or stick to a branch or leaf. The fall wakes them up and they break out of their egg sac. The babies climb branches of a nearby tree or bush straight away and are able to fend for themselves. At birth they are 3-4 cm (2 in) long and double their size in the next five months. They are able to have their own babies after about two years. Their lifespan can be up to ten years.



Birds and snakes are the main predators. As they are very slow moving creatures, Jackson's chameleons rely on staying still, and their lime green colouring and shape to blend into the tree background, to avoid predators. They are also able to change their colour and skin patterns. If they are in real danger they will drop to the ground and remain motionless, hidden in the grass or leaf litter.

Jackson's chameleons do not normally interact with people in the wild, but live alongside man quite happily on farms and in parks. They are very popular pets and as a result, wild populations have spread to many places throughout the world.

JACKSON'S CHAMELEON



Set 4:4 ACTIVITIES

REMEMBERING - What are the facts

1. What is special about a chameleon's eyes?
2. How long is a chameleon's tongue?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw pictures or diagrams to show how the Jackson's chameleon stalks its prey.
   Include labels to explain what is happening in your drawing.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem or rap) about the life of a Jackson's chameleon.
7. ***A day in the life of a Jackson's chameleon***
   Use the information in the report to describe a day in the life of a Jackson's chameleon. You can do this by writing a chameleon story, a chameleon diary, or as a chameleon comic strip with captions. Try to include as many facts about Jackson's chameleons as you can.

ANALYSING - Identifying the features that help chameleons survive

8. ***Information Web***
   List all the physical features and behaviours of the Jackson's chameleon.
   Brainstorm ways which these features and behaviours help the animal to survive.
   Present this information as an INFORMATION WEB.

Example : → fused toes → easy to hold on tightly to branches

EVALUATING - How safe is the Jackson's chameleon

9. ***Predator Rating***—give the Jackson's chameleon a predator rating from 1 to 10
   1 = no danger from predators 10 = very high danger from predators
   Give reasons for your rating using information from the report and your own ideas.

10. ***Extinction Rating***—give the Jackson's chameleon an extinction rating from 1 to 10
    1 = no risk of extinction 10 = very close to extinction
    Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

11. ***Jackson's chameleon Upgrade—overcoming natural threats***
    Make some adaptations to the physical features of the Jackson's chameleon, or the way they behave, to make them more competitive in nature.
    Here are some ideas to get you started ...
    - Improve their ability to move quickly when chasing prey
    - Better care for the young
    - Working together-how could this help

    Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

12. ***Action Plan—saving the Jackson's chameleon from human threats***
    - Make a list of the ways that human activity could endanger the Jackson's chameleon
    - Write an action plan—the steps you would have to take to protect the species
    - Design some of the following to get your message across to the world about the need to protect Jackson's chameleons
      - a radio, TV, or newspaper advertisement, billboard signs, bumper stickers

SNAKES

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Reptiles are a very diverse group of animals which includes snakes, lizards, turtles, and crocodilians. Most reptiles are air-breathing, cold-blooded, lay eggs, and are covered with a waterproof scaly skin. There are over 2,500 species of snakes belonging to 10 different families.

Snakes are such a large and successful group because they are very versatile. They are found in many different habitats, from underground burrows, tree tops, rivers, and deep in the ocean, but are most common in deserts and rainforest which best suit their needs. Unlike mammals and birds, all reptiles including snakes cannot generate body heat through digestion of food. They depend on the heat from the sun and their surroundings to maintain the correct body temperature for survival. Most of their time is spent basking in the sun or finding shelter to get that body temperature just right. To survive in colder conditions, snakes pass the winter in a state of greatly reduced activity similar to hibernation.

All snakes have long cylindrical bodies with no limbs, with each species having special modifications to suit their lifestyle and habitat. Burrowers have sturdy bodies and solid heads to help them push through soil. Sea snakes have flattened paddle-like tails to help them swim. Tree dwellers have long thin shapes to make it easier to move around tree branches. Snakeskin is a smooth, dry outer layer covered in overlapping scales. It is waterproof, preventing water loss allowing snakes to survive in very dry places. Snakes have no external ears but are able to feel vibrations traveling through the ground or the water. Their eyesight is not brilliant but they can detect moving objects. Most of the information they get about their surroundings is by taste. Snakes flick out their forked tongue to collect scent particles from the air and the ground, drawing these back into the mouth where a special mechanism called the Jacobson's organ detects the odours of the particles it receives. With this information it is able to locate prey and mates.

Because snakes do not rely on energy from food to generate body heat, they can survive for long periods of time on little food, sometimes waiting months between meals. Snakes eat a wide range of different food. Smaller snakes eat worms, insects, lizards, small mammals, birds and frogs. Some eat only the eggs of other animals. Larger species will prey on monkeys, small deer, and wild pigs. The snake's special jaws and skeleton make it possible to swallow animals that are much larger than their own head. The prey is swallowed whole, head first. Elastic muscles hold the backbone and ribs together, allowing the ribcage to expand and pass the whole animal through to the stomach where it is digested, often taking several weeks. The only parts not digested are hair or feathers.

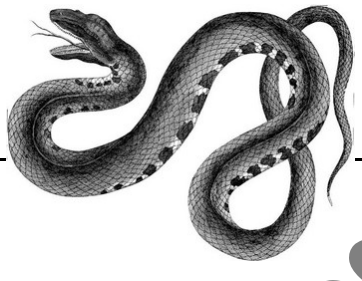
Snakes are usually solitary animals. There are no known instances of cooperation between snakes so hunting for food is always done alone. Hiding places and basking sites are sometimes shared and in colder climates snakes may gather in large numbers in underground dens during winter. However this is usually due to a lack of suitable sites rather than the result of social attraction. They are not territorial and fighting between males is uncommon

Many animals feed on snakes, including birds, carnivorous mammals, larger reptiles such as alligators, and also other snakes. When predators approach, snakes usually attempt to escape notice by remaining still and relying on their complex colour patterns to blend into the background. If cornered they may have other defense strategies such as hissing, displaying fangs, or striking at the attacker.

Most snakes lay eggs, but twenty percent of give birth to live young. Snakes are mature after two to four years and may live for 20-30 years. In reality, most do not reach that age as they fall prey to predators and disease. Unlike mammals, they never stop growing throughout their lifespan. They regularly shed their outer skin as they outgrow it.

Snake skins are much sort after because of the elegant and colourful designs which are used for making jewelry, handbags and shoes. In some places snakes are hunted for meat, but the main reason for the decline of many snake populations is the international pet trade which removes hundreds of thousands of live snakes every year from the wild, affecting the ecological balance of the habitats they live in. This has lead to conservation efforts to raise the awareness of the value of snakes. As for all species, there is also the ever present problem of the destruction of the natural wild habitat for agriculture and urban development.

SNAKES



Set 5:1 ACTIVITIES

REMEMBERING - What are the facts

1. How many species of snakes are there?
2. List the different snake habitats mentioned in the report.
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a diagram to show how a snake can swallow prey that is bigger than its head.
   Include labels to explain what is happening in your drawings.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem or rap) about "Sensational Snakes".
7. ***A day in the life of a snake***
   Use the information in the report to describe a day in the life of a snake.
   You can do this by writing a snake story, a snake diary, or as a snake comic strip with captions.
   Try to include as many facts about snakes as you can.

ANALYSING - Identifying the features that help snakes survive

8. ***Information Web***
   List all the physical features and behaviours of snakes mentioned in the report.
   Brainstorm ways which these features and behaviours help snakes to survive.
   Present this information as an INFORMATION WEB.

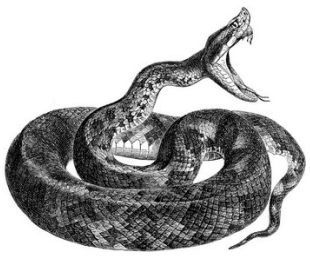
   Example : **SNAKES** → special jaws → can swallow prey much bigger than its head

CREATING - Making improvements

9. ***The Ultimate Snake***
   Design a new super snake that would have an even better chance of surviving in the wild.
   Draw this new creature and label all its useful features.
   Here are some ideas to get you started ...
   - Ways that snakes could cooperate to protect themselves against predators
   - Increasing basking efficiency so they don't have to spend so much time lying in the sun
   - Better strategies to avoid being captured by man

Remember to include diagrams, labels, and descriptions to explain your interesting ideas.






ANACONDAS

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Anacondas are members of the boa snake family which are constrictors. They are non venomous and very big.

Anacondas live in wet tropical regions with swamps, marshes, and slow moving streams, mainly in the tropical rainforests of the Amazon basin in South America. Because they are so large and heavy and slow-moving on land they spend most of their time in water but will come ashore and hang from tree branches to bask in the sun and ambush prey.

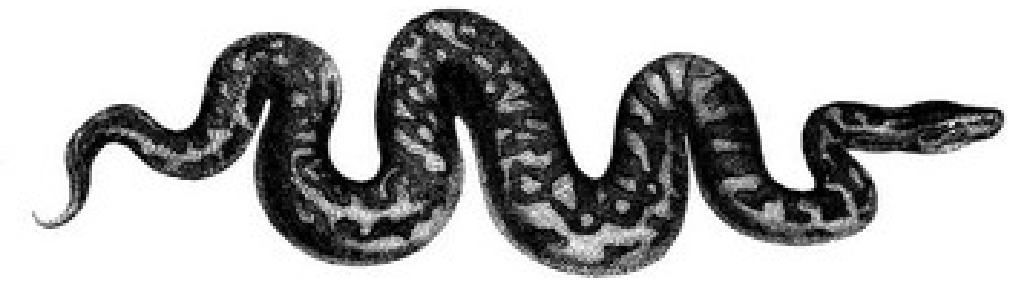
The anaconda is one of the two largest snakes in the world, not the longest, but certainly the heaviest. It has a large head but this is small in comparison to the girth of the rest of its body. There are many exaggerated stories and reported sightings of enormous anacondas but it is generally accepted that they can grow up to 10 m (32 ft), and weigh up to 250 kg (550 lb). Their eyes and nasal openings are on the top of their heads which allows them to remain almost completely submerged while checking out what is going on above the surface. As with all snakes they "hear" by picking up sounds and vibrations underwater, as well as through the ground. They have heat sensing pits along their lips which allow them to detect the body heat given off by warm-blooded animals which helps them to hunt in the dark. They also have a special smelling organ on the roof of their mouth and collect information from the surroundings by flicking its tongue. The snake's jaws are attached to the head by stretchy ligaments which means it can open its mouth 180 degrees and swallow large prey whole. Its skin colours provide camouflage in the jungle and swampy habitat.

Anacondas will feed on anything that the can subdue and swallow; reptiles, mammals, fish and birds. The can swallow prey as large as wild pigs, deer, and even a jaguar. They are active mainly at night, lying in wait in the watery shallows for unsuspecting animals that may come down to the water to drink. They rely on their acute sense of smell and heat sensors to detect warm-blooded prey. They strike, grabbing the prey around the neck with their razor sharp teeth and powerful jaws, then coil themselves around the victim, and drag them into the water, squeezing them until they suffocate or drown. In the water they will attack caiman (small crocodiles) as well as ducks and other waterbirds, taking them from below. A large sized meal will be enough for several weeks.

The female anaconda can be as much as five times larger than the male. In the breeding season as many as a dozen males will be attracted to a single female and form a tangled mating ball for several weeks, competing to mate with the female. While they are carrying young, for 6-7 months, the females do not eat. Large females sometimes kill and eat smaller male anacondas, often after mating, probably in preparation for the long fast ahead. Anacondas give birth to live young, from 20-70 at a time. These baby snakes are up to a metre long (3 ft) when born and can swim and hunt straight away. Those that survive can reproduce after three years and may have a lifespan of 10-20 years.

Mature anacondas have very few natural predators because of their large size. However, female anacondas sometimes eat male anacondas, and large caimans and jaguars may eat anacondas they can overpower. Young anacondas are prey for many animals, including caimans and smaller members of the cat family. Very few survive the first year of life when they are most vulnerable.

Anacondas are not hunted by man for food, but some tribal groups use anaconda fat as folk medicine. In some places they are killed by local farmers because of threats to livestock or because they are believed to be man-eaters. Illegal trade in skins is now a big threat. Because their habitat is not populated by man they are not greatly affected by his day to day activities but the ever increasing habitat destruction of the South American jungle will cause problems for the species in the future.



ANACONDAS

Set 5:2 ACTIVITIES

REMEMBERING - What are the facts

1. Where do anacondas live?
2. Why do anacondas spend most of their time in the water?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture, or pictures, to show how an anaconda attacks and overpowers its prey
   Include labels to explain what is happening in your drawings.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem or rap) about the life of an anaconda.
7. ***A day in the life of an anaconda***
   Use the information in the report to describe a day in the life of an anaconda.
   You can do this by writing an anaconda story, an anaconda diary, or an anaconda comic strip.
   Try to include as many facts about anacondas as you can.

ANALYSING - Identifying the features that help anacondas survive

8. ***Information Web***
   List all the physical features and behaviours of the anaconda mentioned in the report.
   Brainstorm ways which these features and behaviours help the animal to survive.
   Present this information as an INFORMATION WEB.

   Example :  → heat sensors → detect nearby prey in the dark

EVALUATING - How safe is a anaconda

9. ***Predator Rating—***give anacondas a predator rating from 1 to 10
   1 = no danger from predators 10 = very high danger from predators
   Give reasons for your rating using information from the report or your own ideas.

10. ***Extinction Rating—***give anacondas an extinction rating from 1 to 10
    1= no risk of extinction 10 = very close to extinction
    Give reasons for your rating using information from the report and your own ideas.

CREATING - Making improvements

11. ***Anaconda Upgrade—overcoming natural threats.***
    Make some adaptations to the anaconda's physical features, or the way they behave, to make them more competitive in nature.
    Here are some ideas to get you started ...
    - Better movement on land so they can be more active hunters
    - A better survival rate for young anacondas
    - A better deal for male anacondas

    Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

12. ***Action Plan—saving anacondas from human threats***
    - Brainstorm why anacondas are important
    - Make a list of the ways that human activity is endangering, or could endanger anacondas
    - Write an action plan - the steps you would have to take to protect the species
    - Design some of the following to get your message across to the world
      - a radio, TV, or newspaper advertisement, billboard signs, bumper stickers

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

FLYING TREE SNAKES

The paradise tree snake is a reptile, belonging to a small family of snakes that can 'fly'. There are only 5 species belonging to this snake family.

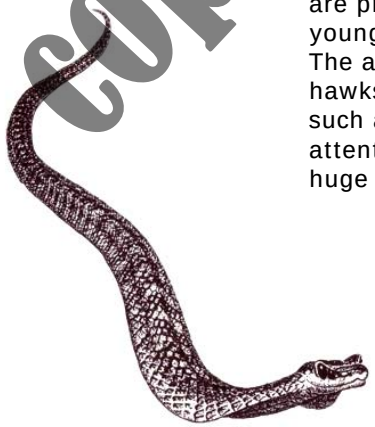
As its name suggests, this snake spends all its time in trees, high up in the tropical rainforest of South East Asia. The warm tropical temperature makes it easy to maintain its desired body temperature allowing it to be active during the day as well as night, and the shade from the tree canopy provides shelter from the heat of the sun when needed.

The paradise tree snake has many physical features that are helpful for its tree-top lifestyle. It is not a large snake, averaging about 1.2 metres (4 ft) in length, and as with most tree-dwelling snakes, it has a long, slender, lightweight body which allows it to slide easily around the thinner branches of the forest canopy. It has a narrow head and snout which allows the visual fields of the two eyes to overlap at the front. This means that it has binocular vision, a great help for judging distances when moving between branches in the forest canopy and locating well camouflaged prey. Most other snakes do not have this advantage.

Other features of these tree snakes include ridged scales on its underbelly, enabling it to grip onto vertical surfaces and move quickly up and down tree trunks. As with most tree snakes, it has a much longer tail than a terrestrial snakes, almost a third of the total body length, which it uses to curl around and grip a branch while the rest of the body stretches forwards towards another branch. Its lightweight and rigid body frame means it can stretch out a considerable distance. The snake's colouring and patterning breaks up the outline of its body shape and allows it to blend among the trees and branches as they sneak up on prey or try to avoid the attention of predators.

But the most startling attribute of the paradise tree snake is its ability to 'fly'. This snake is able to adapt its body for a long, partially controlled glide, sometimes up to 100 m (300 ft) from branch to branch or from treetop to the ground. The snake coils its tail around a branch, drops down into a J shape, and then launches itself into space. It draws in its belly, spreading its ribs to almost double its normal body width, trapping a cushion of air underneath which allows it to 'parachute'. At the same time the snake begins to undulate from side to side, slithering through the air. This movement appears to generate lift and help maintain its balance in flight. It is also able to make sudden 90 degree changes of direction in mid flight by pointing its head in the direction it wishes to go.

The tropical rainforest is teeming with life and provides plenty of food. Because the paradise tree snake is slender and agile, it is an active forager, sliding stealthily up and down a tree, stalking the small tree-dwelling lizards, frogs, bats, chameleons, and rodents that live there. Its gliding ability gives it a huge advantage in the search for food, allowing it to glide from tree to tree in search of new hunting sites. It also allows it to catch flying lizards, one of its favourite food sources, in mid flight. It attacks its prey by biting the neck of the victim and injecting a mild venom. The fangs are located at the back of the mouth and they can only inject once the prey is well inside the mouth.



Like all animals they control the population of their prey and are preyed upon by those further up the feeding chain. The young are always vulnerable to rodents and larger lizards. The adults are preyed upon by birds of prey (owls, eagle, hawks), larger snakes and larger tree-dwelling mammals such as monkeys. They rely on their camouflage to avoid the attention of predators and their gliding ability gives them a huge advantage over predators that are tree-bound.

The tropical rainforests of South East Asia are not threatened by man's activities in the same way as the rainforests of South America, therefore the tree snakes are not under immediate threat. Small snake species are also able to coexist alongside man much easier that larger, more noticeable ones. The fact that little is known about paradise tree snakes is a reflection on their lack of interaction with man.

FLYING TREE SNAKES

Set 5:3 ACTIVITIES

REMEMBERING - What are the facts

1. What is the habitat of the flying paradise tree snake?
2. How is the flying paradise tree snake able to move quickly up and down tree trunks?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a series of pictures or diagrams to show what a paradise tree snake does when it 'flies'.
   Include labels to explain what is happening in your drawings.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem or rap) about the life of a flying tree snake.
7. ***A day in the life of a flying tree snake***
   Use the information in the report to describe a day in the life of a flying tree snake.
   You can do this by writing a flying tree snake story, a flying tree snake diary, or as a comic strip with captions. Try to include as many facts about flying tree snakes as you can.

ANALYSING - Identifying the features that help flying tree snakes survive

8. ***Information Web***
   List all the physical features and behaviours of the flying snake mentioned in the report.
   Brainstorm ways which these features and behaviours help the animal to survive.
   Present this information as an INFORMATION WEB.

Example :  → slender body → easy to move through tree branches

EVALUATING - How safe is a flying tree snake

9. ***Predator Rating***—give flying tree snakes a predator rating from 1 to 10
   1 = no danger from predators 10 = very high danger from predators
   Give reasons for your rating using information from the report or your own ideas.

10. ***Extinction Rating***—give flying tree snakes an extinction rating from 1 to 10
    1 = no risk of extinction 10 = very close to extinction
    Give reasons for your rating using information from the report and your own ideas.

CREATING - Making improvements

11. ***Flying tree snake Upgrade—overcoming natural threats***
    Make some adaptations to the flying tree snake's physical features, or the way they behave, to make them more competitive in nature.
    Here are some ideas to get you started ...
    - Better flying ability—greater distance and improved landing
    - Provide a better defense against birds of prey

    Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

12. ***Action Plan—saving flying tree snakes from human threats***
    - Make a list of the ways that human activity could endanger flying tree snakes
    - Write an action plan—the steps you would have to take to protect the species
    - Design some of the following to get your message across to the world
      - a radio, TV, or newspaper advertisement, billboard signs, bumper stickers

RATTLESNAKES

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Rattlesnakes are highly venomous snakes. There are at least 30 different species of rattlesnakes which all get their name from the very distinctive rattling sound they make with their tail.

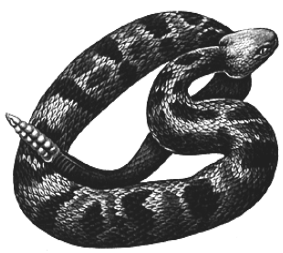
Most rattlesnakes are found in the desert, or similar hot, dry habitats. The desert is very hot during the day and very cold at night, so the cold-blooded rattlesnake spend most of their time trying to keep its temperature just right. Rocky outcrops are favourite basking sites because the rock holds the heat from the sun and also provides crevices and dens to hide from the extreme midday heat. They also use burrows dug by rodents to escape the heat and the night's bitter cold.

Rattlesnakes are medium sized snakes averaging 1.5 m (5 ft). They are ground dwellers with short thick, heavy bodies. They do not have great eyesight but their eyes are very sensitive to movement, and they rely heavily on their well developed sense of smell. Rattlesnakes also have some additional equipment that is very important for their survival. Between each eye and nostril there is a heat-sensing pit, allowing them to sense the heat given off by prey and providing the ability to strike a living target with great accuracy in complete darkness. Their other hunting weapon is their poisonous bite. Rattlesnakes have a distinctively triangular shaped head which is broader than the neck. Below and behind the eyes of the rattlesnake is a pair of venom glands. A large muscle surrounds each gland, giving the snake's head its bulky shape. At the front of the upper jaw are two hollow fangs that are folded back when not in use. The fangs work like hypodermic needles, piercing the skin of the prey while the pair of muscles contract and squeeze the venom out of the glands, along the fangs, and into the stab wound.

Rattlesnakes only hunt for food when they are hungry. As they do not depend on food for energy to move about, adults only need to eat every two weeks. Most of the fluid they need is extracted from their prey and their waterproof skin prevents water loss in the hot dry desert. Their favourite prey are small warm-blooded mammals especially rodents, but they also feed on birds, smaller reptiles and amphibians. Rattlesnakes cannot match the speed of these small, fast moving animals and must rely on ambush for capture. Using their sense of smell they find a well traveled pathway and then lie in wait for their unsuspecting prey to pass by. The rattlesnake strikes its victim with incredible speed, lunging up to two thirds of its total body length forward with great accuracy and force. The hinged fangs swing forward and lock into place and the victim gets a quick injection of venom. The prey is released so that the snake can avoid the teeth and claws of the thrashing victim. The venom kills the prey quickly and attacks the body tissue to make digestion quicker. The snake then swallows the victim head first and will bask in the sun for some days to help the digestion process take place.

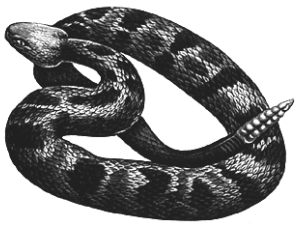
A rattlesnake will give birth to 10 to 20 live fully formed young. The young will be about 25 cm (10 in) long and remain in the area of birth for about 7 to 10 days, until they shed their first skin. They then set off on their own to find food and shelter. They are born with fully functional fangs and venom but many do not survive as they find it difficult to catch food and they are very vulnerable to predators. The few who do survive may live for more than 20 years.

For defense against predators the rattle snake has its famous rattle which it uses to warn aggressors that they are dealing with a poisonous snake. The rattling noise comes from the thick scales at the end of its tail clicking against each other as the snake vibrates its tail. Despite this and the powerful weaponry the rattlesnake is equipped with, adult rattlesnakes are still venerable to attack by other animals. Roadrunners are particularly fond of rattlesnakes. They will hop around the snake, provoking it to strike again and again until it is exhausted, then moving in for the kill with their sharp beaks. Pigs, deer and other hoofed animals trample them, and larger king snakes will prey on rattlesnakes as they are immune to their venom.



The desert is not a habitat which man is very interested in so those species of rattlesnake who are desert dwellers are unaffected by habitat destruction. Rattlesnakes who live closer to man's activities are at greater risk as man's usual response is to want to get rid of them. Every year in the US an estimated 5,000 rattlesnakes are collected and destroyed in "rattlesnake roundups" aimed to save the lives of people and cattle. Man does not always recognise the role rattle-snakes play in restricting the rodent population which destroy farm crops worth billions of dollars of every year.

RATTLESNAKES



Set 5:4 ACTIVITIES

REMEMBERING - What are the facts

1. How do rattlesnakes get their name?
2. What are rattlesnakes favourite basking spots? Why?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture, or a series of pictures, to show what happens when a rattlesnake bites.
   Include labels to explain what is happening in your drawings.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem or rap) about the life of a rattlesnake.
7. ***A day in the life of a rattlesnake***
   Use the information in the report to describe a day in the life of a rattlesnake.
   You can do this by writing a rattlesnake story, a rattlesnake diary, or as a comic strip.
   Try to include as many facts about rattlesnakes as you can.

ANALYSING - Identifying the features that help rattlesnakes survive

8. ***Information Web***
   List all the physical features and behaviours of the rattlesnake mentioned in the report.
   Brainstorm ways which these features and behaviours help the animal to survive.
   Present this information as an INFORMATION WEB.

Example :  → rattle → warn predators

EVALUATING - How safe is the rattlesnake

9. ***Predator Rating***—give rattlesnakes a predator rating from 1 to 10
   1 = no danger from predators ***10 = very high danger from predators***
   Give reasons for your rating using information from the report or your own ideas.

10. ***Extinction Rating***—give rattlesnakes an extinction rating from 1 to 10
    1= no risk of extinction ***10 = very close to extinction***
    Give reasons for your rating using information from the report and your own ideas.

CREATING - Making improvements

11. ***Rattlesnake Upgrade—overcoming natural threats***
    Make some adaptations to the rattlesnake's physical features, or the way they behave, to make them more competitive in nature.
    Here are some ideas to get you started ...
    - Better defense against the predators mentioned in the report
    - Improvements to the way they move around
    - Survival behaviour for young snakes

    Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

12. ***Action Plan—saving rattlesnakes from human threats***
    - Brainstorm why rattlesnakes important.
    - Make a list of the ways that human activity is endangering, or could endanger rattlesnakes.
    - Write an action plan—the steps you would have to take to protect the species
    - Design some of the following to get your message across to the world
      - a radio, TV, or newspaper advertisement, billboard signs, bumper stickers

Reading across the Curriculum 2: REPTILES is the second in this series of resources designed to help teachers teach comprehension strategies and to integrate their reading instruction into other curriculum areas; providing the opportunity to combine skills instruction with the exploration of worthwhile content. This resource consists of ***20 information reports*** on reptiles across a wide spread of reading ages, which allow the whole class to be involved in a scientific investigation as part of the instructional reading programme.

Learning Outcomes in Science

The question underlying the investigation of reptiles is

"What are the features of these reptiles (physical and behavioural) that help them to survive?"

This investigating question promotes a much higher level of thinking than the customary "find out about a reptile" research task.

Big Ideas underlying the content

- Reptiles have different structural, physiological, and behavioural features that help them survive
- Some features are visible and can be easily observed. Others are internal.
- Species become endangered or extinct for a variety of reasons.
- Usually extinction results from the inability of a species to survive environmental change or changes in the factors that stabilise their population.
- A relationship exists between the physical features of a reptile and how the reptiles features enable it to survive

Students are encouraged to

- Identify the physical features of a species - how they help the reptile survive
- Assess the reptile's weaknesses
- Identify factors that will threaten or endanger the species
- Look for solutions - how might the species overcome the problem - future adaptations

Learning Outcomes in English - Report Writing

The texts for instructional reading provide strong models of the information report genre. The logical progression for students having explored the structure and language features of the information report during reading instruction, is to have a go at writing their own.

The summarising of information during the comprehension strategy instruction (Step 3 of "The 3 Steps") develops the note taking skills required for individual research, moving students away from a cut and paste mentality.

Purpose of the Information Report

- To record, organise and store factual information on a topic
- To define, classify, and describe the phenomena of our world

Text Structure

- Introduction - a general classification and / or a general statement
- Body of the report - a series of paragraphs about various aspects of the subject
  Reports in this resource cover the following - physical features, habitat, feeding behaviour, social behaviour, reproduction, predators, man and reptiles
  (NB: Not all reports include all of the above)
- Information Reports do not have an ending or conclusion

Language Features

- Written in the timeless present tense
- Descriptive language but factual and precise rather than imaginative
- Contains technical vocabulary
- Style is formal and objective - author doesn't express opinions or arguments

Oral Language

The instructional reading process outlined also provide huge opportunities for the development of oral language skills.

COMPREHENSION STRATEGY INSTRUCTION—What is it?

A 'good reader' needs to develop a wide range of skills and strategies. Learning to decode marks on a page and recognize an extensive list of words is the first step. Many children can do this fluently and yet do not demonstrate much understanding of the material they have just read. They are under the misconception that a good reader is a fast reader. The reality is that fast reading can be achieved without any processing of text or construction of meaning, taking place.

A good reader is a reader who

- Understands that reading is about constructing meaning not just consuming text
- Understands that this is a very active process involving a mental dialogue with the author and their own prior knowledge and personal experience
- Varies the speed of reading depending on the monitoring of that process

A good reader is like a detective, taking time to look for clues, making sure that they get the facts right, and always thinking about the information; looking for the big picture.

Research into how the construction of meaning (comprehension) takes place has uncovered the following

- It is a very complex process
- There are a number of interdependent strategies used
- These strategies are employed at an automated level in a split second

Quality comprehension instruction recognises this and slows down the reading process, insisting on careful clarification of meaning, attention to how the text is structured, and providing for the explicit, direct instruction of these strategies to solve comprehension problems.

It focuses on developing the metacognition of the reader, making them aware of the thinking (or processing) that is going on in their head, teaching them how to think (or process) if it is not happening, and how to get this internal monologue really sharp through 'thinking aloud'.

"The goal with comprehension strategy instruction … is to teach students to take over their own reading and thinking. When teachers and students read texts together, the teacher is not asking questions but rather participating in a real conversation. The students make predictions, talk about the questions that occur to them as they read, report the images they get during reading, discuss parts of the text that are hard to understand, and generate interpretations, including summary interpretations. After the early stages of comprehension strategies instruction-that is after the teacher is no longer introducing the strategies– the teacher's role in the conversation is limited to prompting students to be active in deciding how they might process the text at this point." (Pressley, 2006)

Pressley, M (2006) *Reading Instruction that Works: The case for balanced teaching*. New York: Guilford Press.

COMPREHENSION STRATEGIES—What are they?

For the purposes of this resource, comprehension strategies have been grouped into two categories.

1. ACTIVE READING strategies

These occur at the time of reading and are fundamental to the concept of "***digging around in the text for clues to make sure we have got the meaning right"*** emphasising the role of the reader as an active rather than a passive participant in the reading process.

As they occur during the meaning making stage they are considered to be **SENTENCE LEVEL COMPREHENSION STRATEGIES** as they are occurring at the sentence level.

These strategies are listed on the next page and are representative of the findings from current reading research on comprehension. In reality, as they occur in the head of the reader, they are all very interdependent and intertwined with each other.

The approach suggested here is to explain, model and practice each one individually and then guide the student through integrating them and acknowledging their use through "thinking aloud" in a guided reading group.

The speed that these strategies will be acquired will depend on the individual learner. Some students already do this very intuitively and pick up the metacognition very quickly. Other will take a considerable amount of time.

This explicit instruction and practice of these strategies occurs during **STEP 2** of **"The 3 Steps"**

2. PROCESSING INFORMATION strategies

These occur after reading in the sense that they are reflective strategies aimed at constructing the big picture from the text and therefore are **TEXT LEVEL COMPREHENSION STRATEGIES.**

To transfer information from short term memory it is important to do something with it, hence the notion of "***use it or lose it"***.

IDENTIFYING TEXT STRUCTURE

Research tells us that good readers make use of text structure to organise and make sense out of ideas in text.

Narrative Text

There are immediate comprehension gains for readers who are introduced to story webbing or story grammar. For further details on teaching text structure in narrative text see the "Short Stories" series by Handy Resources.

Non Fiction—Information reports

The text structure in transactional or non fiction text is not as evident as in narrative text where there is a plot to hang information on. The information reports in this resource are a good starting point because the text is factual and clearly divided into subtopics for each paragraph.

STEP 3 of the Guided Silent Reading process involves summarising chunks of information by deciding on a heading and reducing the ideas to trigger words, thereby creating a text structure.

BLOOM'S TAXONOMY FOLLOW UP ACTIVITIES

These are activities designed for students to work at independently after a reading session has been completed. The higher levels require in depth processing of the text and develop critical and creative thinking — important comprehension strategies.

COMPREHENSION STRATEGIES TO BE TAUGHT

During Guided Reading the teacher models and students practise the comprehension strategies by "Thinking Aloud"

ACTIVE READING *"Digging around for clues"*

Developing Sentence Level Comprehension

Making connections to prior knowledge
Good readers make connections between what they are reading and their own prior knowledge and personal experience. This helps them build their own interpretation of the information or story.

"I read about that in an encyclopaedia. It said..."
"That has happened to me. Last week I..."
"I know about that because..."

Step 2

Visualising the action
Good readers play back the action in their heads to help them understand what is happening.
Good readers look for descriptive words in the text and allow them to paint pictures in their heads.

"I have a picture in my head of how that looks..."
"I can see how that works. It goes like this..."
"I have a good picture of that character. He has ..."

Making connections to something else in the text
Good readers gather clues and make connections between pieces of information (reading between the lines) to fill in the gaps.

"It said in the last paragraph that ....."
"I think it means ... because it said..."

Asking questions - wondering
Good readers are always looking for clues as they are reading - posing questions, talking to themselves about the unfolding of information or the story and about significant language features.

"I wonder what that looks like?"
"I don't understand what that means?"
"I wonder what will happen next?"

Forming and revising hypotheses
Good readers use their inferences to form hypotheses or expectations about information (non fiction) or where the story is heading (narrative). They are always weighing up the evidence and are quick to revise a hypothesis if there is new information.

"I think it must live all by itself because...."
"I think it has a very short life span..."
"I think this is not going to work out because..."

PROCESSING INFORMATION *"Use it or lose it"*

Developing Text Level Comprehension

Identifying text structure
Good readers look for headings and trigger words to summarise information (non fiction)

"Look for text structure as you read.
Decide on a heading for this paragraph and trigger words to remind you of the main ideas (non fiction)

Step 3

Good readers use what they know about text structure to hang the story on as they read it (narrative)

"What can we add to our story web?" (narrative)
ie problem, response, action, outcome"

Applying (Bloom's Level 3)
Good readers are able to present information found in the text in a new way

Follow up Activities
See examples in Handy Resources

Independent Follow up Activities

Analysing (Bloom's Level 4)
Good readers can take the text apart and put it back together in a way that has meaning to them

Follow up Activities
See examples in Handy Resources

Evaluating (Bloom's Level 5)
Good readers can make judgments about the text based on their understanding of the genre

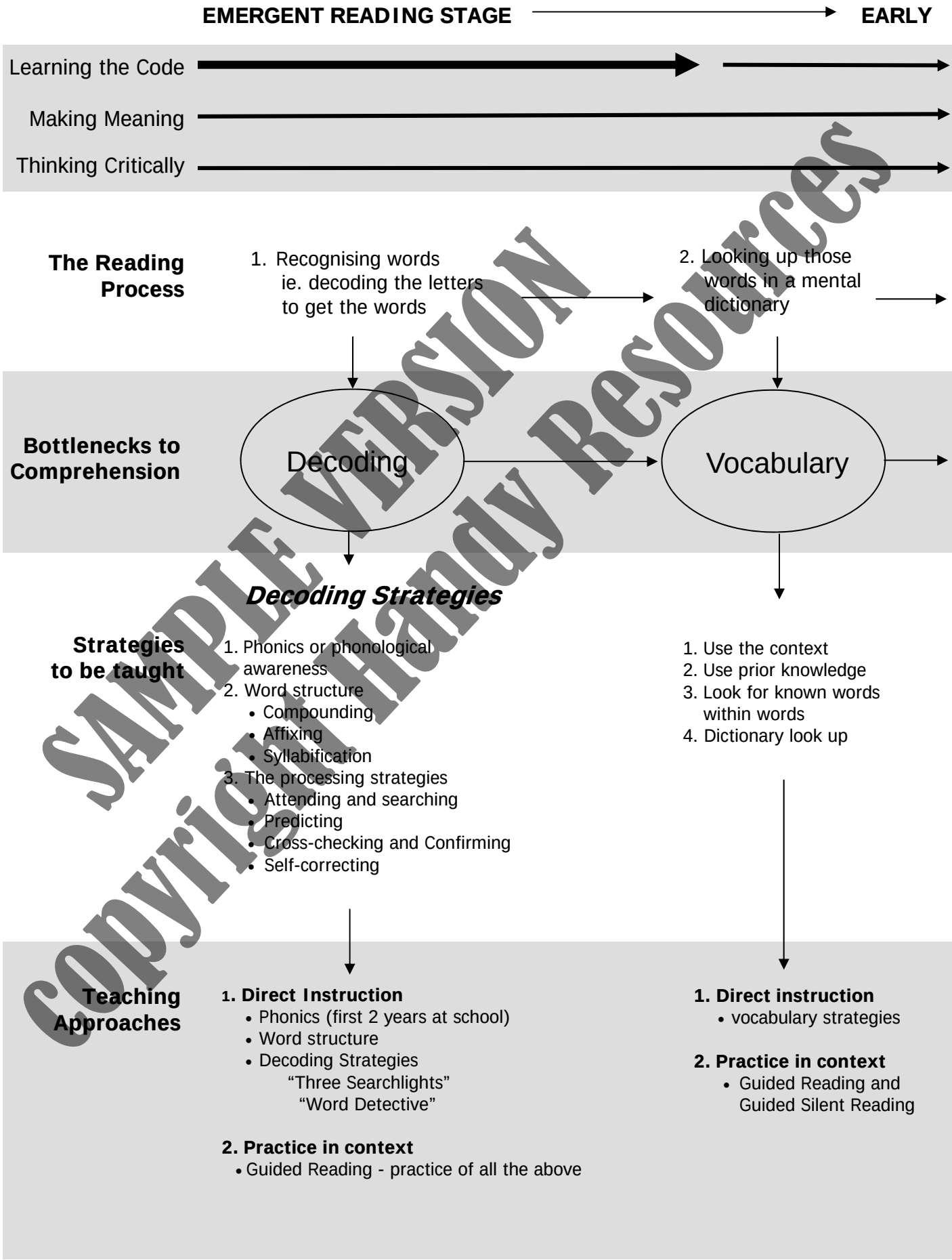
Follow up Activities
See examples in Handy Resources

Creating (Bloom's Level 6)
Good readers can generate new solutions to the problems, ideas or issues that have been raised in the text

Follow up Activities
See examples in Handy Resources

See pages 51 and 52 for "The Big Picture—Where comprehension strategies fit into Reading Instruction".

THE BIG PICTURE — Where comprehension strategies fit into



READING STAGE → **FLUENT READING STAGE**

3. Processing those words in linguistic chunks so that the meaning of the sentence is clear

4. Organising the linguistic information from successive sentences into a structure that can be remembered

Sentence Level Comprehension

Text Level Comprehension

Comprehension Strategies

Active Reading
"Digging around for clues"
1. Making connections to prior knowledge
2. Making connections to information in the text
3. Visualising the action
4. Asking questions
5. Forming and hypotheses
6. Revising hypotheses

Processing Information
"Use it or lose it"
1. Identifying text structure
   - Narrative Text—Story Webs
   - Non fiction Text– Heading Trigger words

2. Bloom's Thinking Skills
   - Applying
   - Analysing
   - Evaluating
   - Creating

1. Direct Instruction
- Explicit teaching and modelling of the comprehension strategies

2. Practice in context "The 3 Steps"
- Guided Silent Reading - ***Step 2***
  - Detailed Retelling

1. Direct Instruction
- Explicit teaching and modelling of
  - text structure
  - Bloom's thinking skills

2. Practice in context "The 3 Steps"
- Guided Silent Reading - ***Step 3***
  - Add to Story Web - Narrative
  - Heading and trigger words - Non fiction

3. Follow up Activities

Adapted from Tom Nicholson's "The Reading Process"

Lesson Format for Comprehension Strategy Instruction

The Three Steps provides a systematic, structured process for the teaching and practicing Of comprehension strategies. As such it is highly predictable for the teacher and the students, allowing the learner to get control of the bits and then put them all together. In the early stages it may take 20 minutes to complete two paragraphs of text as routines are established. In time, the quantity of text processed increases and the learners are able to take much more responsibility for constructing meaning as they become more fluent.

Handy Resources Information Reports

The information on page 3 and the charts on pages 55-57 provide some outlines to this Guided Reading process. The following is a much more in-depth look.

For each paragraph follow the three steps

Step 1: Set a Purpose - "Think of a heading while you are reading."
This provides a focus for active reading of text rather than just churning through the passage.

Read the chunk of text silently

Provide a copy of the charts on pages 55 or 56 which the students can use to mask the rest of the passage to prevent them reading on.
Fast finishers can start recording their choice of a heading and trigger words in the margin while waiting for slower readers to complete the silent reading.

Step 2: Detailed Retelling (Sentence Level Comprehension strategies)

This is the most complex part of the process and these routines will need to be developed over time. Use your professional judgment to work at the level that the students are ready for. ***Keep modeling the mental processing by thinking aloud.***

Initial routine

Students can : 1. Read out "the next bit of information"
2. Use "I think that means" to put information in own words

Detailed retelling involves locating the first piece of information (it may be a sentence or part of a sentence—rarely more than a sentence), reading it out and then attempting to put in your own words starting with "I think this means…" Initially this may not produce much variation from the actual text. It does, however, quickly reveal whether the student has correctly interpreted the piece of information. If the response is weak, then the teacher models a better response and then calls on someone else to process 'the next piece of information". This is very different from the traditional response which is to ask a clarifying question. You are trying to move away from this approach where the student relies on you unpacking the text with your questioning. Initially there may be significant pauses because of the thinking that is required—a good sign.
Keep the momentum going as you need to keep everyone engaged. When it gets bogged down step in and model the internal dialogue—get it back on track.

Second Phase

Students can : Continue to do 1 and 2
3. Use a targeted strategy in isolation

Once the students are fluent with this routine you can start to introduce the strategies (see chart on page 56). The suggestion is to introduce one at a time and give as much practice as is needed before introducing another one.
"Making a connection to something you know" is usually the easiest one to start with.
Of course the piece of information may not lend itself to connections to prior knowledge in which case you just move on to the next piece of information.
The student should still start with "I think that means…"

Step 2: Detailed Retelling *(continued)*

Third Phase

Student can : Continue to do 1 and 2
4. Select from all the strategies as appropriate
5. Identify the strategy they have used

Once all five strategies have been introduced and a reasonable level of fluency has been attained you can move on to this third phase where the student can use any of the strategies as they think aloud about the piece of information they are processing. Once they have finished their turn, or during their thinking aloud, they can indicate the strategies they are using.

Additional scaffolding you can use to get students started

1. Teacher models; student has a go at the same piece of information
   They have the security of having heard what you have said and can just repeat that or add a bit of their own thinking to it.
2. Student has a go but is weak (or the message is not right); Teacher models a better response from the same piece of information
   This is always the preferred response from the teacher rather than engaging in questioning during Step 2.
3. Teacher models every 2nd piece of information, then every third piece, gradually withdraws as the group members become more confident and understand the routine.

Step 3: Decide on a Heading (Text Level Comprehension strategies)

Students can : Justify a choice of heading
Agree on a heading

A list of headings is included on the students "Three Steps Charts" pages 55 and 56. Students choose the one that best summarises the information in the paragraph that has just been processed.

Encourage "thinking aloud" to justify choices. This is where you can do some questioning to clarify ideas and clear up misconceptions.

Identify Trigger Words

Students can : Reduce pieces of information down to trigger words

A trigger word is a word that will trigger off recall of that piece of information. Encourage students to reduce information down to the bare minimum—a very useful skill for gathering research information, moving the learner away from a cut and paste mentality.

To introduce this routine start by reading out each piece of information and asking the group for a trigger word(s).
Discuss as a group
Record individually
Eventually the group will be able to do this processing individually and come up with their own lists.

Cover the text and take turns at retelling using Trigger Words only

This is the test of how well they have processed the paragraph and how carefully they have selected trigger words.
Do this in pairs to speed up the process.

Move on to the next paragraph

CHARTS FOR TEACHING THE THREE STEPS

The following charts are designed to be used with the group during reading instruction.

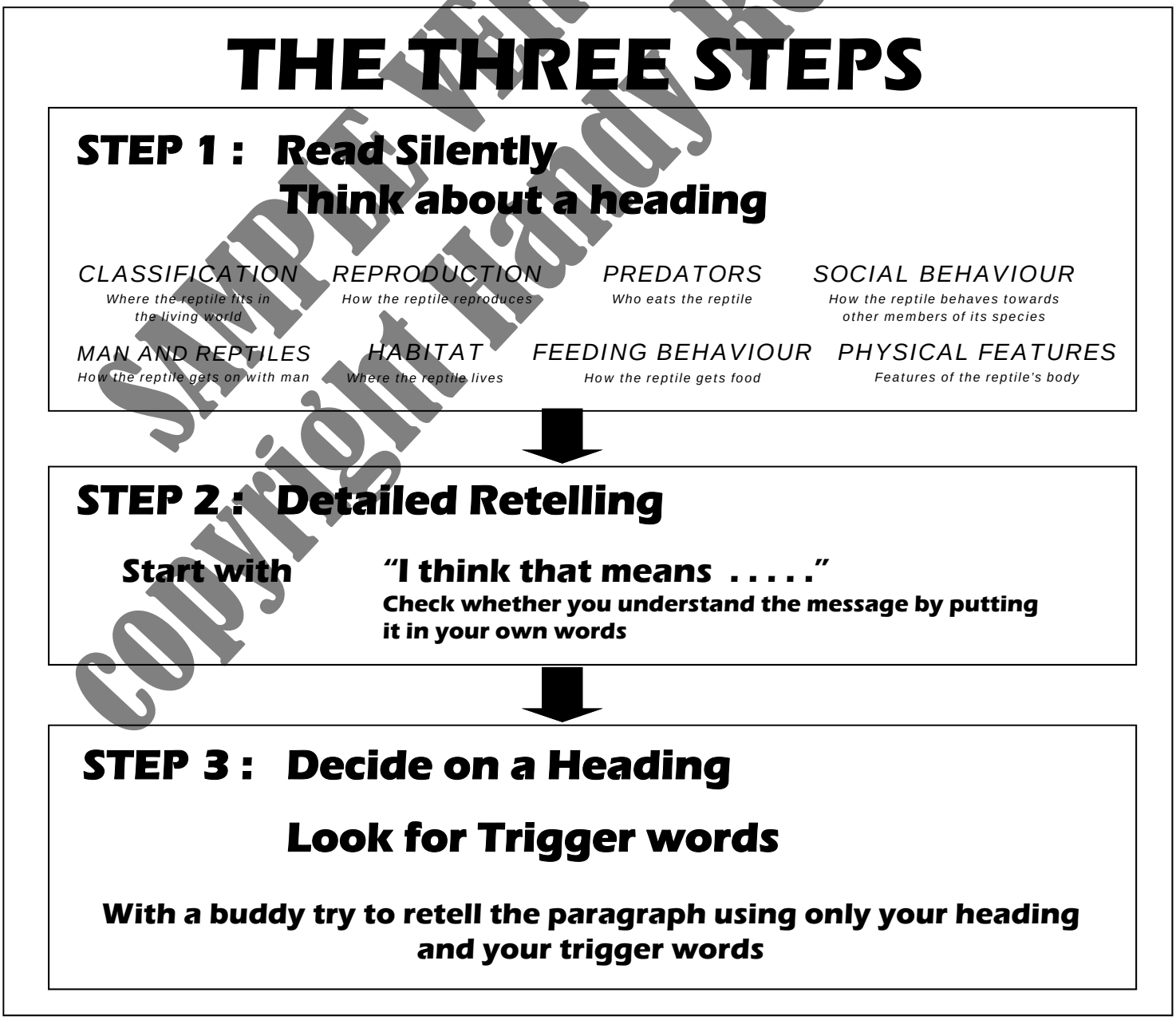
CHART 1 Page 55
Provide a laminated copy of this chart for each student to use during the initial phase of Comprehension Strategy Instruction.

Purpose:

A constant visual reminder of the Three Steps.
A screen to cover the next chunk of text (discourages reading on)
A marker to help students find and keep the place during detailed retelling
A screen for buddy retelling when students are supposed to be using headings and trigger words to retell, not the original text.

CHART 2 Page 56
This is an expanded version of CHART 1 including all the comprehension strategies. Use this once the initial "I think that means…" phase is well established.
Continue to use as text marker and text screen.

CHART 3 Page 57
An outline of the Three Steps process to use as a whole class reminder (enlarge to A3)



THE THREE STEPS

STEP 1 : Read Silently
Think about a heading

CLASSIFICATION
Where the reptile fits in the living world

REPRODUCTION
How the reptile reproduces

PREDATORS
Who eats the reptile

SOCIAL BEHAVIOUR
How the reptile behaves towards other members of its species

MAN AND REPTILES
How the reptile gets on with man

HABITAT
Where the reptile lives

FEEDING BEHAVIOUR
How the reptile gets food

PHYSICAL FEATURES
Features of the reptile's body

STEP 2 : Detailed Retelling

Start with **"I think that means . . . . ."**
Check whether you understand the message by putting it in your own words

Use COMPREHENSION STRATEGIES to overcome roadblocks

1. Make a connection to something you know
"I know that because . . . "

2. Visualise what the words are saying
"I have a picture in my head of . . . "

3. Make a connection to something else in the text
"In the last paragraph it said that . . . "

4. Ask questions about the information
"I wonder why . . . ?"

5. Form an hypothesis about what is going on
"I think this is because . . . "

STEP 3 : Decide on a Heading

Look for Trigger words

With a buddy try to retell the paragraph using only your heading and your trigger words

Good Readers are READING DETECTIVES

They are always . . .

- **Looking for clues**
- **Making sure they get the facts right**
- **Thinking about the information**

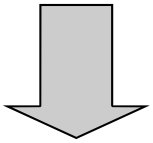
Be a Reading Detective Today

We are learning to read non fiction text using

THE THREE STEPS

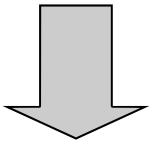
1. Set a Purpose Read Silently

"Knowing what to look for"



2. Detailed Retelling

"Making sure we have got the message right"



3. Decide on a Heading Look for Trigger Words

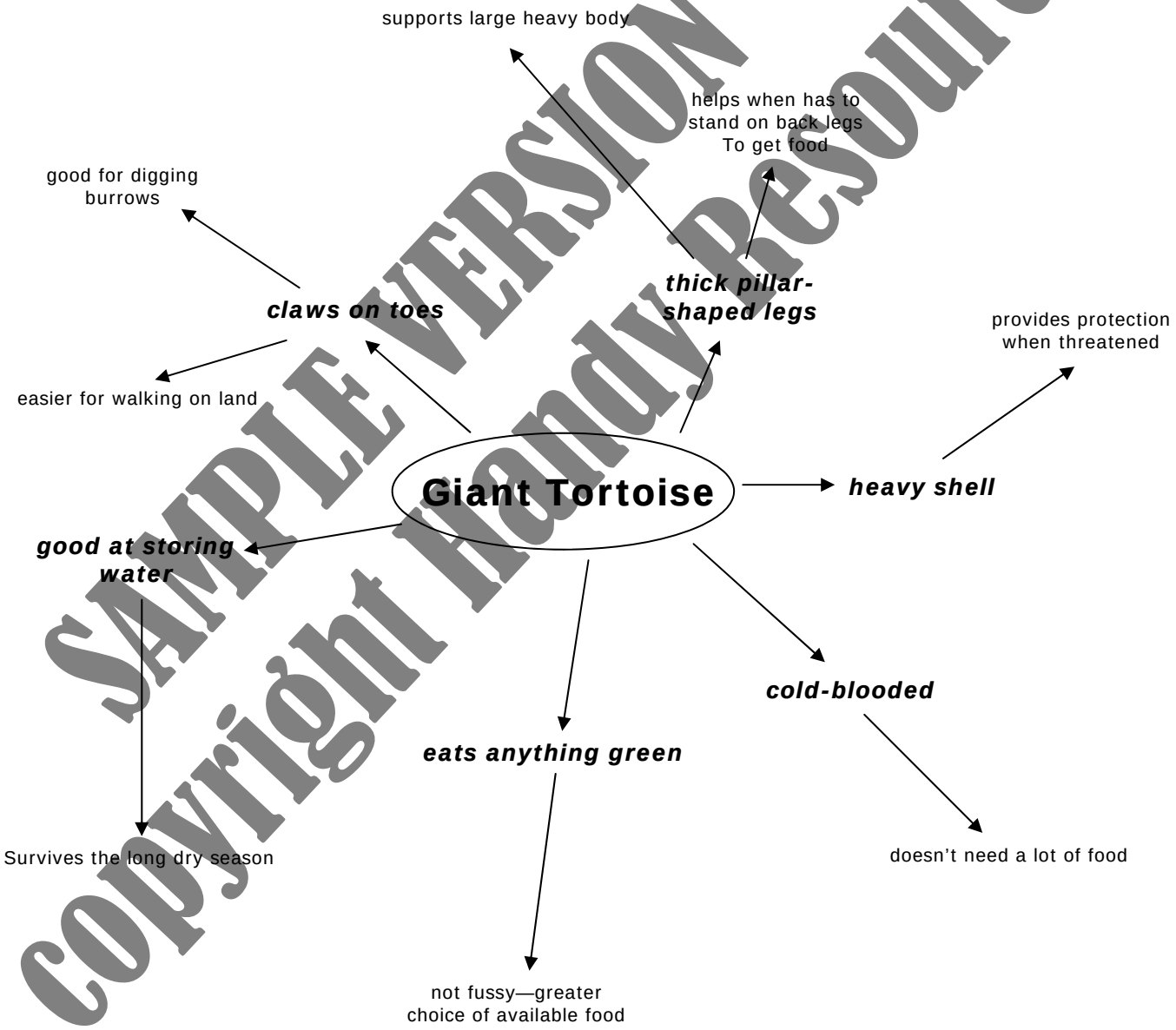
"Summarising new information we have found"

THE INFORMATION WEB : An example (The Giant Tortoise)

ANALYSING - Identifying the features that help the giant tortoise survive

Information Web

List all the physical features and behaviours of the giant tortoise mentioned in the report. Brainstorm ways which these features and behaviours help the animal to survive. Present this information as an INFORMATION WEB.



MAKING SMALL GROUP INSTRUCTION HAPPEN—Suggestions for classroom organisation

Option 1—Starting out

This option involves a five day cycle with the teacher seeing 2 groups a day for 20 minutes each—a reasonable amount of time for intensive comprehension instruction using "The Three Steps". The information report can be broken into two or more parts and the group will cover 2-3 paragraphs per session.

Contact for all students every second day is important for developing fluency with the 3 steps process and allows for careful scaffolding of the activities.

Spend time teaching the activities so that the work is of a high standard and demonstrates the higher level thinking that is required.
Allow time somewhere else in your programme for the presentation of work to an audience (very motivating for the students).
Note the allocation of time for a personal reading programme—the opportunity to practice the strategies you are teaching at a recreational level. As this is a non fiction programme it is a good idea to encourage non fiction text reading during this time which could involve a self directed research project with the presentation of findings and hence some accountability. However there is nothing wrong with some of this time being purely for reading without a work outcome.

10 Min: Shared Reading—whole class instruction (a chance to review strategies with the whole class using blown up material)

40 Min: Guided Silent Reading—small group instruction programme (see timetable)

10 Min: Wrap up-sharing successes

	Day 1		Day 2		Day 3		Day 4		Day 5	
	First 20 mins	Second 20 min	First 20 mins	Second 20 min	First 20 mins	Second 20 min	First 20 mins	Second 20 min	First 20 mins	Second 20 min
Group 1 RA 7-8 Set 1	GSR with Teacher Set 1.1 Reptiles First 1/2 report	Bloom's Activities Levels 1 and 2 Set 1.1 Reptiles	Bloom's Activities Levels 1 and 2 Set 1.1 Reptiles contd	Personal Reading programme	Spelling Activity	GSR with Teacher Set 1.1 Reptiles Second 1/2 report	Bloom's Activities Higher levels Set 1.1 Reptiles	Bloom's Activities Higher levels Set 1.1 Reptiles contd	Personal Reading programme	Spelling Activity
Group 2 RA 8-9 Set 2	Independent brainstorm of prior knowledge about Crocodilians	GSR with Teacher Set 2.2 Crocodilians First 1/2 report	Bloom's Activities Levels 1 and 2 2.2 Crocodilians	Bloom's Activities Levels 1 and 2 Set 2.2 Crocodilians contd	Personal Reading programme	Spelling Activity	GSR with Teacher Set 2.2 Crocodilians Second 1/2 report	Bloom's Activities Higher levels Set 2.2 Crocodilians	Bloom's Activities Higher levels Set 2.2 Crocodilians contd	Personal Reading programme
Group 3 RA 9-10 Set 3	Personal Reading programme	Independent brainstorm of prior knowledge about Turtles	GSR with Teacher Set 3.1 Turtles First 1/2 report	Bloom's Activities Levels 1 and 2 Set 3.1 Turtles	Bloom's Activities Levels 1 and 2 Set 3.1 Turtles contd	Personal Reading programme	Spelling Activity	GSR with Teacher Set 3.1 Turtles Second 1/2 report	Bloom's Activities Higher levels Set 3.1 Turtles	Bloom's Activities Higher levels Set 3.1 Turtles contd
Group 4 RA 10-12 Set 4	Bloom's Activities Higher levels	Personal Reading programme	Independent brainstorm of prior knowledge about Beavers	GSR with Teacher Set 4.1 Lizards First 1/2 report	Bloom's Activities Levels 1 and 2 Set 4.1 Lizards	Bloom's Activities Levels 1 and 2 Set 4.1 Lizards contd	Personal Reading programme	Spelling Activity	GSR with Teacher Set 4.1 Lizards Second 1/2 report	Bloom's Activities Higher levels Set 4.1 Lizards
Group 5 RA 12-14 Set 5	Bloom's Activities Higher levels	Bloom's Activities Higher levels contd	Personal Reading programme	Independent brainstorm of prior knowledge about Anacondas	GSR with Teacher Set 5.2 Anacondas First 1/2 report	Bloom's Activities Levels 1 and 2 Set 5.2 Anacondas	Bloom's Activities Levels 1 and 2 Set 5.2 Anacondas contd	Personal Reading programme	Spelling Activity	GSR with Teacher Set 5.2 Anacondas Second 1/2 report

Option 2: Later on

As the routines become more established and the students become fluent with the 3 steps and the comprehension strategies, you may wish to change the classroom organisation. Here is a suggestion. The lowest reading group will benefit from daily contact even though this is for a shortened time (10 mins). The other groups can meet for 30 mins on a four day cycle. As the processing of information speeds up, this may be enough time to process the complete information report and set up the independent work activities. If not, then continue to divide the report into 2 and do it in two sittings. It is better to take longer and do it properly than to rush through it and perpetrate superficial reading strategies.

10 Min: Shared Reading—whole class instruction (a chance to review strategies with the whole class using blown up material)

40 Min: Guided Silent Reading—small group instruction programme (see timetable)

10 Min: Wrap up-sharing successes

	Day 1		Day 2		Day 3		Day 4	
	First 10 mins	Second 30 min	First 10 mins	Second 30 min	First 10 mins	Second 30 min	First 10 mins	Second 30 min
Group 1 RA 7-8 Set 1	GSR with Teacher Set 1.4 Snakes Part 1 of report	Bloom's Activities Levels 1 and 2	GSR with Teacher Set 1.4 Snakes Part 2 of report	Bloom's Activities Levels 1 and 2	GSR with Teacher Set 1.4 Snakes Part 3 of report	Bloom's Activities Higher levels	GSR with Teacher Set 1.4 Snakes Part 4 of report	Bloom's Activities Higher levels
Group 2 RA 8-9 Set 2	Sharing activities with peers	GSR with Teacher Set 2.4 American alligators	Selected Bloom's follow up activities Could be set up as a work contract which also includes spelling activities etc		Selected Bloom's follow up activities Could be set up as a work contract which also includes spelling activities etc		Personal Reading programme which could involve own research topic	
Group 3 RA 9-10 Set 3	Personal Reading programme which could involve own research topic		Sharing activities with peers	GSR with Teacher Set 3.4 Mud turtles	Selected Bloom's follow up activities Could be set up as a work contract which also includes spelling activities etc		Selected Bloom's follow up activities Could be set up as a work contract which also includes spelling activities etc	
Group 4 RA 10-12 Set 4	Selected Bloom's follow up activities Could be set up as a work contract which also includes spelling activities etc		Personal Reading programme which could involve own research topic		Sharing activities with peers	GSR with Teacher Set 4.4 Jackson's chameleon	Selected Bloom's follow up activities Could be set up as a work contract which also includes spelling activities etc	
Group 5 RA 12-14 Set 5	Selected Bloom's follow up activities Could be set up as a work contract which also includes spelling activities etc		Selected Bloom's follow up activities Could be set up as a work contract which also includes spelling activities etc		Personal Reading programme which could involve own research topic		Sharing activities with peers	GSR with Teacher Set 5.4 Rattlesnakes

Set 1: *REPTILES*

Possible Headings and Trigger Words

Set 1:1
REPTILES

Classification
- Reptiles
- Scales
- Breathe air
- Lay eggs
- Cold-blooded

Habitat
- Hot countries
- Trees, ground, under-ground, water

Physical features
- Small in trees-climbing feet, claws
- Skin design-hide
- Scales-thick skin
- Good smell
- Tongue tastes air

Feeding Behaviour
- Swallow animals whole
- Young-insects
- Adults-fish, birds, smaller reptiles
- Eat less

Reproduction
- Most lay eggs-land
- Cover to hide
- Leathery shell
- Babies feed themselves
- On their own

Predators
- Most don't survive
- Favourite food-many animals

Set 1:2
TURTLES

Classification
- Reptiles

Habitat
- Sea-out to lay eggs
- Tortoise-land-dig holes
- Water and land -streams, ponds, lakes

Physical features
- Shell
- Land-slow moving
- Protection-inside shell
- Underwater long time
- Flippers, webbed feet-swimming

Feeding behaviour
- Plants, insects, snails, small animals
- Don't need lots
- No teeth-beak
- No chewing-swallow

Reproduction
- Nest on land
- Dig hole-cover, leave
- Live 100years

Predators
- Eggs eaten
- Babies easy prey
- Few survive
- Adults-shell good protection

Set 1:3
SNAKES

Classification
- Reptiles
- Cold-blooded

Habitat
- Many places
- Ground, underground, trees, rivers, ocean
- Best place-desert, rainforests

Physical features
- Cylinder
- Slide-no legs
- Smooth skin-scales
- Skin splits

Feeding behaviour
- Meat-eaters
- Small-insects, lizards, rats
- Larger-wild pigs etc
- Lie in wait
- Bite, kill-poison or squeezing
- Swallow prey whole
- Special jaws

Reproduction
- Some live births
- Adults– 2 to 3 years
- Live 20-30 years
- Always growing

Predators
- Many animals
- Stay still
- Skin designs-help hide
- Hiss, fangs, strike

Set 1:4
LIZARDS

Classification
- Reptiles
- 4,000 types
- Biggest reptile family

Habitat
- Most places
- Hot rainforest-favourite

Physical features
- Many shapes, sizes
- 4 legs-stick out
- Many small-trees
- Claws, tail-climbing
- Move quickly

Feeding Behaviour
- Eat anything
- Small-insects
- Chase or sticky tongue
- Important-insects
- Large-eat meat

Reproduction
- Eggs-soft, leathery shells
- Babies on their own
- Live 5-10 years

Predators
- Many eat them
- Small
- Change colour –hide, frighten
- Tail breaks off
- Larger-defend—teeth, claws

Man and lizards
- Hunted-skins
- Pets

Set 2 : CROCODILIANS
Possible Headings and Trigger Words

Set 2:1
REPTILES

Classification
- Scales
- Breathe air
- Lay eggs
- Cold-blooded
- 4 reptile families

Habitat
- Everywhere-not Antarctica
- Tropical rainforest-numerous
- Small-tree dwellers
- Larger-ground, water

Physical Features
- Cold-blooded-sun's heat
- Basking/shade
- Waterproof skin-keeps water in
- Scales-protection

Feeding Behaviour
- 1 large meal per week
- Some plant eaters
- Most meat eaters
- Small-insects
- Larger-fish, birds, mammals, reptiles
- Swallow whole-no chewing teeth

Reproduction
- Eggs-on land
- Leathery shell
- Dig holes-cover
- Babies feed themselves
- On their own

Predators
- Young eaten by other animals
- Not many babies survive

Set 2:2
CROCODILIANS

Classification
- Reptile group
- Crocs, alligators, caimans
- 23 types

Physical features
- Similar shape
- 4 legs-- side of body
- Long tail
- Long snout
- largest, heaviest reptile
- 1.2m to 7m
- Swim well
- Bigger-slow on land

Habitat
- Slow flowing rivers, lakes
- Few saltwater
- Cold-blooded-hot countries
- In sun or in water
- Floating-less energy

Feeding Behaviour
- Eat anything
- Small-fish
- Larger-birds, turtles, large mammals
- Attack from water
- Short distance-fast
- Tire easily
- Swallow everything
- Dissolved in stomach

Reproduction
- Nest-dry land
- Care for young-guard nest 3 months
- Babies stay-1 year
- 25cm-grow fast first 3 years
- 50 years lifespan

Predators
- 1/100 survive
- Owls, snakes, fish, crocs
- 1 m safe

Man and croodilians
- Hunted-skins
- Laws to protect

Set 2:3
NILE CROCODILES

Classification
- Reptile-crocodilian
- Very clever
- Very vicious

Habitat
- Lowland Africa-hot
- Rivers, swamps-lots
- Salty water OK
- All day-lie in sun or water

Physical Features
- Plates-back, tail-steel
- Powerful tail-swimming -knock prey over
- Jaw-narrow, v-shaped -gripping , tearing
- Great eyesight
- Hear well
- Vibration-water

Feeding Behaviour
- Attack large animals
- Wait shallow water
- Explode-grab neck, leg
- Drag underwater
- Twist-chunks
- Swallow-no chewing
- Women washing clothes

Reproduction
- Nest in sand-back feet
- 10-70 eggs
- Watches –3 months
- Hatchlings call
- Digs up-carries to water
- With mother 1 year

Predators
- Half eggs taken
- Many eaten first year
- Adults-left alone
- Elephants trample
- Hippos-huge teeth

Set 2:4
AMERICAN ALLIGATORS

Classification
- Reptile-crocodilian
- 2 types-American - Chinese smaller

Habitat
- Southeast United States
- Rivers, swamps, wetlands
- Colder temperatures
- Water fresh

Physical Features
- Smaller than crocs
- Wider, shorter u-shaped head
- Bushy plants-push through
- Jaws-bone crushing
- Dark gray, black-blend

More Habitat
- Winter-water freezes
- Slow down, no food
- Stay underwater
- Underwater dens
- Nose through ice-breathing hole

Reproduction
- Nests above ground
- Plant, mud-great care
- Several weeks
- Next year
- 35-40 eggs
- Cover-plants, mud
- Look after eggs,1st year

Man and American alligators
- Man-only predator
- 100 years-hunted lots
- Skin-leather
- Laws-limit hunting
- Alligator farms
- No longer at risk
- Man sharing, changing habitat
- More dangerous

Set 3 : TURTLES

Possible Headings and Trigger Words

Set 3:1
TURTLES

Classification
- Reptiles
- Tortoises, freshwater, sea

Habitat
- Tortoise-land, shallow burrows
- Freshwater turtles-slow moving water
- Sea turtles-salt water ocean

Physical features
- cold-blooded
- Sun to heat
- Waterproof skin
- Bony shell
- Upper, lower shell
- 10cm-2 m

Feeding Behaviour
- Tortoises-plants
- Others-insects, snails
- Become herbivores
- Large-meater eaters
- No teeth-beak
- No chewing

Social Behaviour
- Not social
- Bask together

Reproduction
- Eggs-soft, leathery
- Nests on land
- 1-150 eggs
- Dig hole, cover, leave
- Adults in 5-20 years
- 100 year lifespan

Predators
- Nests destroyed, eggs eaten
- Hatchlings-few survive
- Shells-good protection

Man and turtles
- Hunted –food, shells
- Habitats damaged

Set 3:2
THE GIANT TORTOISE

Classification
- Reptile
- Largest turtle

Physical features
- Pillar-shaped legs
- Claws on toes-digging, burrowing
- Danger-withdraw into shell

Habitat
- Hot climate
- Tree shelter
- Burrow at night
- Few islands

Feeding Behaviour
- Anything green
- From ground
- Then higher up
- Back legs-risky
- Store water

Social Behaviour
- Alone
- Peaceful
- Neck stretching competitions
- Highest wins

Man and giant tortoises
- 19th century-sailors food supply
- Months-no food water
- Stack on back-ship hold
- Hunted-oil
- Now protected

Predators
- Few predators
- Introduced animals eat food, eggs, babies

Set 3:3
GREEN TURTLES

Classification
- Reptile
- Sea turtle family

Physical features
- Flattened body-swimming
- Front flippers-paddles
- Back flippers-steer
- Long time underwater
- Come up for air
- Babies 4-5cm
- Adults 100 cm, 150 kg

Habitat
- Warm ocean
- First 10 yrs-out at sea
- Feeding ground-shore
- Nesting beach-travel 1000km
- Return-feeding ground

Feeding Behaviour
- Young-small ocean animals
- Adults-seaweed/grasses

Reproduction
- Breed-10 years
- Lay eggs-night
- Hole –sand, above high tide mark
- 100 eggs-soft, leathery
- Covers, leaves
- Hatch-2 months
- Egg tooth
- Head for water

Predators
- Eggs-crab, birds, wild animals
- Young-fish
- 2/100 survive
- 50 yrs lifespan

Man and green turtles
- Hunted-food, oil, skin
- Few nesting beaches
- Fisherman's nets
- Boats-collide
- Ocean pollution

Set 3:4
MUD TURTLES

Classification
- Freshwater turtles
- Mostly in water

Physical features
- Small-12cm
- Dull green, yellow brown
- Underside yellow
- 2 hinges-hide
- Webbed feet-swimming
- Claws-on land

Habitat
- Mexico, South-Central America
- Water– shallow, slow-moving, fresh
- Not good swimmers
- Sandy, muddy bottom
- Dries up-burrow, look over-land
- Winter hibernate-mud, rotted logs, leaf piles

Feeding Behaviour
- Insects, tadpoles, small fish
- Water plants
- Sight, smell, touch
- Feed-walking on bottom
- Eat underwater

Reproduction
- After 5-7 yrs
- 1-6 eggs
- Nests-hole out of water
- Hatch-5 months
- Babies on their own
- 15-30 years lifespan

Predators
- Raccoons, birds
- Hide in shell
- Horrible smell
- Bury in mud

Man and mud turtles
- Pets
- Pollute waterways
- Take over habitat

Set 4 : LIZARDS
Possible Headings and Trigger Words

Set 4:1
LIZARDS

Classification
- Largest reptile group
- 4,000 species

Habitat
- Many places
- Tropical rainforest ideal
- In trees, on ground, under leaf litter
- Bask
- Active at night – tropics
- Colder mountains - hibernate

Physical Features
- Wide variety-shape, colour
- 4 legs, 5 clawed toes
- Legs stick out sides
- Sails, frills

Feeding Behaviour
- Eat anything
- Most small-insects
- Mostly active predators
- Some large carnivores
- Need water

Predators
- Important food supply
- Camouflage important
- Can lose tail

Reproduction
- Most lay eggs
- Leathery shells
- Babies independent
- Few survive
- Cold regions-live births
- Life span 5-10 yrs

Man and lizards
- Control pests
- Hunted for skins, pets
- Problem– habitat destruction

Set 4:2
THORNY DEVILS

Classification
- Small reptile
- lizard

Habitat
- Desert-Central Australia
- Sandy soil-digging
- Burrow for daytime shelter
- Dig into sand-nighttime cold
- Not active when hot and cold
- When active 1 km per day

Physical Features
- 20 cm
- Sharp, conical spines
- Yellow, brown markings
- Curved tail
- Moves slowly-dead leaf

Feeding Behaviour
- Collects dew on back
- Channels to mouth
- Only black ants
- One at a time
- 45 per minute
- Meal = 1000s

Reproduction
- Gather–mating season
- 3-10 eggs
- Burrow 30cm underground
- Leaves eggs-fills burrow
- Hatch-3-4 months
- Mature +3 years
- 20 years

Predators
- Slow movements
- Changes colour
- Unappertising spines
- Protects head-false head
- Puffs up
- Bustards, goannas
- Goannas eat eggs

Man and thorny devils
- Little interaction
- Habitat not threatened

Set 4:3
KOMODO DRAGONS

Classification
- Largest lizard
- Most vicious lizard

Habitat
- Indonesian islands
- Tall grass
- Scraggly jungle

Physical Features
- Long neck
- Stubby bowed legs
- Huge thick tail
- Sandy brown-camouflage
- 2.5 metre, 91 kg

Feeding Behaviour
- Scavengers
- Fearless attacker
- Deer, pig, young dragons
- Ambush prey-knock down
- 60 razor teeth-tear flesh
- Swallows everything
- Eats own body weight
- Infectious mouth
- Tracks wounded
- Soon die

Social Behaviour
- Lives alone
- Shallow burrow at night-cold
- Defend hunting area
- Gather to feed
- Fight over mates-grapple

Reproduction
- Eggs—shallow burrow
- 20 eggs
- Hatchlings on their own
- Adult in 5 years
- 50 years lifespan

Predators
- Top of food chain
- Young at risk—adults
- First 3 years in trees

Man and komodo dragons
- Discovered 1912
- Hunted-skins, feet
- Zoos, private buyers
- Endangered
- Now protected
- Natural disaster–wipe out

Set 4:4
JACKSON'S CHAMELEON

Classification
- African chameleon

Physical features
- Independent focusing eyes
- Tilt, flatten body-sun
- Fused toes-grip branches
- Claws-climbing
- Long tail-grip branches
- Long tongue-1.5 x
- Average size-40 cm

Habitat
- Mountain Africa
- Trees, bushes
- 2 metres off ground
- Stay on same bush

Feeding Behaviour
- Daytime feeding
- Slow moving
- Rely on vision, camouflage, sticky tongue
- Eyes focus together
- Tail anchors
- Flicks tongue
- Lap water-leaves

Social Behaviour
- Solitary
- Avoid others
- Territory –males lock horns

Reproduction
- Live birth
- Clutch 20
- Drop to ground-egg sac
- Break out
- Climb plant
- On their own
- 3-4 cm
- Double size-5 months
- Mature in 2 years
- 10 years lifespan

Predators
- Birds, snakes
- Rely on camouflage
- Change colour
- Drop to ground-hide

Man and Jackson's chameleons
- Little interaction
- Coexist-farms, parks
- Popular pets

Set 5 : SNAKES
Possible Headings and Trigger Words

Set 5:1
SNAKES

Classification
- Reptiles
- 2,500 species of snakes

Habitat
- Burrows, tree tops, rivers, ocean
- Common-desert, rainforest
- Need heat for survival
- Winter almost hibernate

Physical Features
- Cylindrical-no limbs
- Burrowers-sturdy, solid head
- Sea snakes-flattened tail
- Tree snakes-thin
- Snakeskin-smooth, scales, waterproof
- Feel vibrations
- See moving objects
- Flick tongue-taste

Feeding Behaviour
- Months between meals
- Small snakes-worms, lizards, insects
- Large snakes-large mammals
- Special jaws-large prey
- Swallow whole
- Ribcage expands
- Digestion several weeks
- Everything except hair, feathers

Social Behaviour
- Solitary
- No cooperation-hunt alone
- Shared hiding, basking sites
- Not for social reasons
- Not territorial

Predators
- Many predators
- Remain still
- Rely on camouflage
- Cornered-hiss, fangs, strike

Reproduction
- 20% live births
- Mature 2-4 years
- Most are eaten
- Always growing

Man and snakes
- Hunted for skins, meat
- Mainly pet trade
- Result conservation
- Habitat destruction

Set 5:2
ANACONDAS

Classification
- Boa family
- Constrictors
- Non venomous
- Big

Habitat
- Tropical rainforest
- Swamps, marshes, slow moving streams
- Mostly in water
- Hang from trees

Physical Features
- Heaviest snake
- Small head big girth
- 10m, 250 kg
- Eyes, nostrils top of head
- 'hear' vibrations
- Heat sensing pits-lips
- Flick tongue-collect smells
- Jaws 180 degrees
- Swallow large prey whole
- Skin good camouflage

Feeding Behaviour
- Eat anything
- Swallow large mammals
- Ambush at night
  -shallow water
- Drag into water
- Squeeze-suffocate
- Meal every 2 weeks

Reproduction
- Female 5x male
- Mating ball for 2 weeks
- 6-7months
- Mother doesn't eat
- Live birth 20-70
- 1m at birth
- On their own
- Live 10-20 years

Predators
- Adults few predators
- Females eat males
- Few young survive

Man and armadillos
- Not hunted for food
- Folk medicine
- Threats to livestock
- Illegal skin trade
- Habitat not shared
- Problem-habitat destruction

Set 5:3
FLYING TREE SNAKES

Classification
- Reptile
- Only 5 flying species

Habitat
- Trees
- Tropical rainforest South East Asia
- Warm temp
- Active day and night
- Canopy-shelter

Physical Features
- 1.2 metres
- Slender, lightweight—good in trees
- Narrow head-binocular
- Ridged scales-climbing
- Tail – 1/3 length, grips branches
- Rigid body-stretches
- Colouring/patterns
  -camouflage
- Controlled glide
- Ribs spread-parachute
- Slither-generates lift
- 90 degree turns

Feeding Behaviour
- Active forager
- Glides-tree to tree
- Bites neck
- Mild venom

Predators
- Young-rodents, lizards
- Adults-birds of prey, snakes, mammals
- Rely on camouflage
- Fly to escape

Man and flying tree snakes
- Habitat not seriously threatened
- Coexist alongside man
- Not much interaction

Set 5:4
RATTLESNAKES

Classification
- Highly venomous
- 30 species
- Name-tail rattle

Habitat
- Desert-day hot, night cold
- Need little food, water
- Outcrops-favourite for basking, hiding
- Use burrows
- Winter-hibernate

Physical Features
- Medium size
- Ground dwellers
- See movement
- Rely-sense of smell
- Heat sensing pits
- Poisonous bite
- Triangular head
- Venom glands
- Folded hollow fangs
- Muscles contract

Feeding Behaviour
- Hunt when hungry
- Feed every 2 weeks
- Water from prey
- Rodents
- Ambush prey
- Inject venom
- Swallow head first
- Digestion takes days

Reproduction
- Live birth-10 to 20 young
- 25cm long
- Stay close–week-shed first skin
- On their own
- Few survive
- 20 years

Predators
- Rattle-warning
- Vulnerable
- Roadrunners-tease
- Trampled by hooves
- King snake-immune

Man and rattlesnakes
- Desert-not much contact
- Rattlesnake round-ups
- 5,000 killed per year
- Needed-eat rodent pests